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GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

MINISTRY OF AGRICULTURE

GIS -

Revised TAPP

Utilization of Agro-Ecological Zones (AEZ) Data Base and Installation of
GIS for Agricultural Development (2nd Revision)

(UNDP/GOB funded project)



Bangladesh Agricultural Research Council

New Airport Road, Farmgate, Dhaka 1215

September 2001



TAPP PART A PROJECT ID (1) PROJECT NO (2) TAPP DATE REVISED (3)
 TA October, 1994 July, 1998.
 March, 1999.
 August 2001.

PROJECT TITLE (4) Utilization of Agro-Ecological Zones(AEZ) Data Base and
 Installation of GIS for Agricultural Development (2nd Revision).

ADM. MINISTRY/DIVISION (5) Executing Agency (6)
 Ministry of Agriculture Bangladesh Agricultural Research Council under the
 Ministry of Agriculture

SECTOR (7) Agriculture NATIONAL PROJECT DIRECTOR (8)
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TAPP PART- B : PROJECT DATES

PLANNED START (10): JAN/1996 PLANNED COMPLETION : JUNE 1999
 ACTUAL START (11) : JULY 1996 EXPECTED COMPLETION : DECEMBER 2001

TAPP PART - C : PROJECT FINANCING

12. Donor : UNDP
 13. Local cost source : GOB/UNDP
 14. FE source : UNDP
 15. Currency rate : Taka 56.55 per US\$ (effect from 1 July 2001)



(Figures in Lakh Taka)

Project Cost Year	Total Cost (16)	FE Cost (17)	Taka Cost (18)	GOB Cost (19)	Project Aid (20)	RPA Cost (21)	CDVAT Cost (22)
1996-1998	508.01	348.50	159.51	73.87	434.14	85.64	69.27
1998-1999	276.39	187.20	89.19	1.40	274.99	87.79	Nil
1999-2000	151.61	70.61	81.00	1.00	150.61	80.00	Nil
2000-2001	49.96	13.46	36.50	3.49	46.47	33.01	Nil
2001-2001 (Dec)	31.13	3.30	27.83	9.73	21.40	18.10	Nil
Total	1017.10	623.07	394.03	89.49	927.61	304.54	69.27

Note: Comparative statement of approved and revised budget is shown in the Annexure.

23. Financial arrangement with donor : This is an on-going TA Project.

24. Name/Designation of donor contact : Resident Representative, UNDP,
Dhaka, Bangladesh

25. Financing after completion of the project ? Tk. 100 Lakh/Year

26. Mode of Financing :	Grant	GOB-ADP Budget
	√	√

27. Self Financing : Not applicable

TAPP PART D-1 : PROJECT DESCRIPTION (28)

1. Introduction

The existing computerized Agro-ecological zones (AEZ) database of Bangladesh includes information on soil, climate, landform, hydrology and land suitability of the country. It contains, in a readily accessible and transportable form the physical resources data which assists agricultural planning in Bangladesh.

A reconnaissance soil survey, carried out between 1963 and 1975, provided comprehensive information on soil, seasonal inundation and land use and interpretation in terms of land capability and crop suitability. A national appraisal of agricultural development possibilities was made in 1971, using reconnaissance soil survey data available upto 1970. The Land Resources activities in Bangladesh was initiated in 1979 under the FAO/UNDP Land Use Advisory Project. The objective, originally was to set up a natural resources data bank in the Ministry of Agriculture (MOA) so as to make Soil Survey information as a basis for more rational planning of agricultural development. In 1983, however, the project was expanded to provide also a more sophisticated analysis of the climatic data and an assessment of the areas suitable for the production of the major agricultural crops. Under the previous

FAO/UNDP assistance from 1980 to 1987, a national AEZ land resources database system was successfully developed together with trained manpower to operate it. It constitutes the foundation for a full-fledged national and sub-national agricultural planning database.

The present AEZ system is providing information on physical land resources for use by decision makers in land and agricultural resources management. However, in order to improve ability and accuracy in dealing with the intricacies of resource planning under the complex Bangladesh environmental conditions the present data base needs constant updating as with time there has been certain changes due to natural and human interventions. The system needs to be updated and enlarged with new data on the socio-economic factors of agricultural production, with map or image processing facilities, and with appropriate production/resources management models.

An agricultural planning information system is, therefore, required, which will be capable of managing large amounts of statistical, spatial and temporal data and generating information products in the form of maps, tabular and textural reports. The technology which can accomplish this is Geographic Information System (GIS) which will enable the resource planner to rapidly produce a combination of maps, tables and text which together show "where" (location of resources), "what" (kind of resources), and prepare present action plans and simulate possible future values and scenarios for planning future sustainable agricultural development. Using the information system realistic agricultural planning on production and rehabilitation programme can be drawn which will be useful for strengthening national food security system.

Realizing the urgency and importance of developing such a system, UNDP agreed to fund this project and is funding since July 1996 with FAO, acting as UN implementing agency for providing technical supports.

Project Achievements till date

A. Physical (Attainment over 98%)

- a. Project office is now equipped with all necessary facilities including project staff. A small library has been set up in the project office, where all the project activity/outputs and related others are preserved.
- b. GIS equipment procured by FAO/UNDP was installed and handed over to BARC on 27/04/98. The system runs on Windows NT platform. Year before last, updated version of Arc Info installed.
- c. Provision of seven foreign trainings on GIS (12 and 6 months duration) have been executed. Program of one study tour at the start phase for 3 persons executed. Second study tour of 4 persons executed by FAO in July 2001.
- d. Twelve BARC core staff and 110 focal points and working scientists representing various NARS, DAE, NGOs, AEZ/GIS network institutions have been oriented/trained so that they understand the capability of the system and can use the system of BARC as and when needed.
- e. Expansion of the AEZ/GIS Network is a continuous process.

B. Technical (Attainment over 90%)

- a. All available and relevant data on soil, crop, climate, hydrology, FSR and socio-economics of the farm community of the country have been collected and stored at BARC in GIS environment.
- b. Institutionalization of the data transfer system and its functioning.
- c. Crop rules modified, cropping patterns rule framed, land suitability updated and validated in some places of the country.
- d. Socio-economic data collection and analysis for 200 priority upazilas completed. Further, sub-sectoral professional groups on livestock, fisheries and forestry formed and the database development under process at the institute level.
- e. A detailed training manual on AEZ/GIS methodology and its applications prepared and is being used in the HRD activities.
- f. By now, updated semi-detailed 300 upazila information on biophysical, infrastructures, growth centres etc. digitized and is used for local level planning exercises and HRD activities.
- g. Map products/outputs at the national level on inundation, Cropping by AEZ/Sub-region, land use, land type, general soil type, irrigation intensity, climate, flood, drought, salinity, FSR technology extrapolation, pH, soil moisture zone, LGP etc. done.
- h. GIS project worked/working closely with the drought/supplemental irrigation project of the DAE and produced/supplied map and tabular outputs delineating drought prone areas by severity and by cropping seasons. DAE has printed the maps (5000 copies) for wider distribution. A book in this regard is under of process of preparation and will be published by the DAE's drought project.
- i. GIS Map outputs in binded form and in hard copy distributed among several ministries, NARS institutions, DAE, Universities and various development agencies.
- j. Project was instrumental in preparing the manuscript of a book on "Land degradation and change in cropping pattern" (published by BARC). This is one of the major outcomes of the project's database and its application.
- k. GIS project activities have been much acclaimed by various agencies both at home and abroad and news item in this respect published by Arc News, USA, GIS & Development, India and 'Daily Janakantha', Bangladesh.
- l. Being impressed by the projects' success, recently, FAO Rome in their 'Millennium Video Program' has documented our project activities. This project is the only one choosen for the purpose from Bangladesh.
- m. By now hundred project reports on database management, crop modeling, ground water situation, consultancy, training and workshop proceedings prepared



- n. Through UNDP/FAO's assistance, GIS project is working in close cooperation with various foreign and local agencies to develop model on drought, flood management and on the impact of climate change on the agricultural production.
- o. BARC's core GIS personnel worked/working as informal teacher in various training/workshop programs organized by national and international agencies.

C. Training/Manpower Development (Attainment over 92%)

Until June 2001, 331 Persons trained (78 women) and over 620 high level decision makers, policy planners sensitized on AEZ/GIS. The trainees and the persons sensitized spread over all most all relevant ministries and organizations both of govt. and non-govt. Details of trainings conducted are given below:

- a) High level two-days sensitization workshop on AEZ/GIS for one hundred persons successfully implemented during 29-30 June 1997.
- b) Consultative group meeting/Training on 5 different Program areas (Soil, Crop, Climate, Computer and Socio-Economic) implemented with the participation of 120 officers during 10-15 August 1997.
- c) Training Workshop on inclusion of Socio-Economic parameters in the AEZ/GIS Database System for 30 high level Scientists on 18 March 1998.
- d) Seven advance training Programs on GIS software (Arc View and Arc Info), UNIX, Oracle, Advance Arc View and Arc Info executed for the GIS core group, NARS and DAE during 15 February to 16 June 1998.
- e) Training workshop on AEZ/GIS for 120 teachers, researchers, extension workers and NGO's organized in Hazi Md. Danesh Krishi College, Dinajpur during 21-22 March, 1998.
- f) Two weeks training on "AEZ/GIS Methodology and Applications" during 14-30 June, 1998 for 17 persons.
- g) Two-months training on GIS Software and its Applications executed during 16 August -14 October 1998 for 15 persons.
- h) High level orientation Workshop on GIS and its Applications Organized on 28 October 1998 for 80 persons.
- i) Two weeks "Systems Software Training in GIS" executed during 29 Nov. - 14 Dec. 1998 for 15 persons.
- j) One week training on "Application of GIS in Agriculture" during 10-18 January 1999 for 15 persons.
- k) Orientation workshop for the BARC officers (70 nos) organized on 8 February-4 March 1999.
- l) Training/Workshop on Upazila Boundary Edge-Matching workshop for 25 scientists organized during 28 February-4 March 1999.
- m) Two-month training on "Application of GIS in Agricultural Planning" for 15 scientists implemented during 12 April 1999 - 10 June 1999.

- n) Orientation on Application of GIS in Agricultural Development Planning during 10-11 August 1999 at BAU, Mymensingh for 120 persons.
- o) One day training/workshop on "An Inventory of Major Donor Funded Studies/Reports on Crops, Fisheries, Forestry, Livestock and AERS" held on 15 September 1999 at BARC, Dhaka for 14 persons.
- p) Two-week training Program on "Application of AEZ/GIS for local level Agricultural Planning" for 18 DAE personnel during 19 September - 2 Oct 1999 at BARC, Dhaka.
- q) One week Program on "Systems Training in GIS" during 23 January - 31 January 2000 at BARC, Dhaka for 12 persons.
- r) Two-week training Program on "Application of GIS in Agriculture" during 22 February - 6 March 2000 at BARC, Dhaka for 15 persons.
- s) Two-Month Training Program on "Application of GIS in Agricultural Planning" during 2 May - 30 June, 2000 at BARC, Dhaka for 15 persons.
- t) Two-Week system training on "Visual Basic/Access Programming" during 17-30 August, 2000 at BARC, Dhaka for 10 persons.
- u) Two-week training on "Application of GIS in Agriculture" during 6-19 December, 2000 at BARC, Dhaka for 15 persons.
- v) Two-week training on "AEZ/GIS Database Management and its Application in Agriculture" during 28 January-10 February 2001 at BARC, Dhaka for 15 persons.
- w) Two-week training on "AEZ/GIS Database Management and its Application in Agriculture" during 10 June-23 June 2001 at BARC, Dhaka for 15 persons.
- x) Seminars/training programs were also organized on AEZ in the Bangladesh Agricultural University, Mymensingh, in Jessore, Chittagong and in Brahmanbaria for the teachers, researchers, extensionists and NGO personnel.
- y) A series of trainings for the AEZ/GIS network institutions, NARS, DAE, academic institutions and NGOs' for seven days, fifteen days and two months duration are planned in future as per project provision.

Future project activities

- a) Agricultural disaster management and modeling.
- b) Incorporation of socio-economic and farming system data.
- c) Updating of crop/land suitability assessment rules.
- d) Development of Country/District/Upazila Almanac.
- e) Inclusion of AEZ/GIS in academic curriculum.
- f) Procurement and installation of additional GIS equipment.
- g) Field validation of computerised output and models.

- h) Series of different training (1-week, 2-week and 2-month duration) and seminars/workshops to be organized for officers of NARS institutes, AEZ/GIS Network members, NGOs' and other organisations.

Causes of Delay in Project Execution:

- a) Approval of the TAPP by ECNEC/Planning Commission on 28 December 1994. But the Project could start its operation only in 01 July 1996 due to delay in the preparation of the document and signing by ERD, UNDP and BARC in August 1995;
- b) Delay in the process of nomination of a regular NPD from BARC (in July 1996) and its endorsement by MOA;
- c) Delay in the processing and fielding of an expatriate GIS Consultant (only in July 1996) by FAO, which was treated as a prerequisite for project start.
- d) Release of opening fund by UNDP only in July 1996.

Extension of the Project period till 31 December 2001:

Due to the delay in the start of the project activities for the reasons mentioned above some activities remained unfinished e.g. a) Addressing agroecologically constrained/vulnerable areas for poverty alleviation. b) Disaster management modeling (Flood, drought, salinity etc.). Crop yield/loss estimation using GIS and related other techniques. c) Development of country/District/upazila Almanac and dissemination of information in Disk/CD with CIMMYT assistance for local level planning purposes. d) Field validation of products/outputs before its wider dissemination. As there might be some time lag between present project expiry and MOA's approval of the 2nd revision, expenditure incurred during that period will be considered as a part of the approved TAPP. Since the activities are to be completed for the successful implementation of the project, the duration needs to be extended till 31 December 2001. The matter was discussed in the TPR meeting held on 8 April 2001 and agreed upon by UNDP, MOA and FAO (Minutes of the meeting enclosed).

Reasons for Budget Increase

- a) Because of the delay in start (in July 1996) there was substantial increase in the UNDP's payment procedure for local consultants and project staff. Further, due to of the devaluation/change in currency rate of the Taka against dollar, there was increase in the payment part (UNDP's memo no. PER/262/5/2 dated 10 September 1997 regarding salary enhancement). This increase in salary of the National Project Professional Personnel (NPPP)/Local Consultants increased the project cost.
- b) Increase in the salary of project staff due to enhancement of salary structure by UNDP and for the extension of the project period for six months upto December 2001 and their job continuation.
- c) Increase in the foreign training/study tour cost implemented by FAO due to increase in dollar exchange rate, enhancement in the payment of monthly allowance/DSA resulted in increase of budget amount.

Sustainability After Expiry

For continuous updating of the database, providing services to the increasing number of clients; resource support (GOB/Donar) will be necessary. A cost-recovery mechanism is under process of approval by the Governing Board of BARC.



- d) Provision of miscellaneous fund for payment of local purchase incidental cost and remuneration of the NPD and core BARC staff.

2. The Project

The main objective of the project is to transfer the results obtained by the Land Resources Appraisal Project (Agro-ecological zones) to agricultural research, extension, development planners and scientists at national, regional, district and thana levels in order to draw action programmes. Specific objectives are:

- Sensitize people at the planning, decision making process about the importance of AEZ/GIS as a planning tool.
- Develop manpower on the AEZ/GIS system use and applications.
- Utilize the AEZ/GIS database for crop production, crop diversification and disaster preparedness programme planning.
- Strengthen efforts of the agricultural extension services to develop location specific technology packages through the establishment of an effective interface with the users.
- Incorporate Socio-economic parameters in the AEZ/GIS database.
- Field validation of the system's output and prepare optimal scenarios for land use planning at national, district and thana levels.

3. Participatory Development of AEZ/GIS and information flow

The National Agricultural Research System (NARS) is pursuing activities to generate new knowledge which can be used at the farm level to derive benefit contributing to the national agricultural development. Technology need to be based on local problems and obviously will be different for varied locations. To make the research information representative and replicable, AEZ/GIS database can serve as a powerful tool to guide research direction. Information thus obtained will be applicable and valid for situations with identical agroecological regions.

AEZ data base presently used in the preparation of Thana guide for agricultural production also contains current information on soil chemical parameters. In the process of Thana guide preparation and use, research and extension personnel are intimately linked. Further to this, Agricultural Support Service Project (ASSP) of the Department of Agriculture Extension (DAE), much emphasis has been placed on the localized production planning using AEZ/GIS data. Integrating the AEZ/GIS data with the Thana guide, BARC has developed a model for location specific crop production planning taking into account all components of risks and uncertainties of crop production. Validation of the model in a selected Thana has been found to be useful, effective and viable, as has been envisaged in ASSP. The model makes use of all available database including the data obtained for the location by the extension system

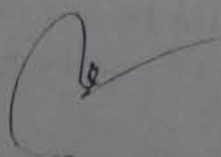
on cropping, farmers affordability and need. The model requires the use of computers to create options for the farmers. Under the ASSP, SFFP, TCTII and IPM project of DAE there is provision of establishing computer facilities, which will facilitate quick transfer of AEZ/GIS database to those computers for onward use in local level production planning. Information generated at the local level will be stored, used and transferred to the national level for macro and micro planning purposes. Thus, two-way flow of data and user agencies direct participation in the generation and application of the database in the agricultural development planning process will be ensured and will lead to the success of this project. The services provided by this project will not be available from other GIS installations of the country. As such, this project will have vital role to play in respect of data collection, transfer and use in agriculture without duplication to other agencies.

4. Manpower development

Training is a critical aspect of this project with a major objective being to develop trained manpower on AEZ/GIS systems use and applications in order to reduce dependency on foreign aid and foreign consultants. The training proposed, targets core BARC personnel, subject matter specialists from NARS, DAE, AEZ/GIS Network and user groups at national, district and thana levels. The development of human resources, both of the research and the implementors is vital for the sustainability and continued development of the project programmes. Emphasis is placed on both foreign, and incountry trainings which are being coordinated by BARC through the AEZ/GIS Network. The AEZ/GIS network formed through a notification of the MOA, involves user agencies including the participation of the academic institutions. Trainers will be drawn from the BARC personnel, from participating agencies, national consultants and international experts. In addition, a series of overseas trainings and study tours, participation in relevant seminars, workshop etc. are to be provided to strengthen the capabilities of core BARC personnel. Further on completion and handing over of the GIS equipment on 27 April, 1998 systems training for BARC and Network person has been organized. Through such rigorous human resource development programmes, a trained team will be formed who ultimately will take the responsibility of continuing activities of the project. During the project period, technical backstopping support from FAO will be arranged. During these years, efforts will also be made to link the system to similar regional networks to derive the benefit of experiences gained and for regular exchange of ideas and information.

Overseas Training

- a) Three 12-month higher trainings (post-graduate level) on GIS application, land resources, land assessment/ management are provided. Since the core BARC personnel will be responsible for the continuity of the project activities- major participation in these 3 one year training will be from BARC. Accordingly, two BARC personnel and as per UNDP's guideline on gender balance, one lady scientist from BRRI has been trained abroad in these course.
- b) Out of the four 6-month training provisions on GIS methodology and applications, two BARC personnel and two scientists one each from BJRI and BFRI have been trained.



Study tours

Eight slots on study tours/participation in workshop, seminars were provided for senior officials of MOA/BARC with decision making responsibilities in order to expose them to the experience of other countries on the use of GIS in land resource management and agricultural development planning. The first study tour was implemented for three persons during April 1997 in Nepal, China, Thailand and Malaysia and the second study visit was implemented during 17-28 July 2001 for four persons in South Korea and Japan. Further acquaintance and awareness will be useful for the BARC scientists implementing the project. As such, further study visits and participation in seminars, workshops etc. in developed/third world countries, might be allowed based on the unspent amount and one slot remaining as agreed earlier. For the rest of the project period one slot of 5-12 days duration may be organized by FAO. Visit will occur in developed countries (DC) and in the third world countries (TWC).

In-country training

Although in-service training will be a continuous activity conducted by national and international project staff, a series of formal workshop, seminars, consultative group meetings and training courses of different duration will be conducted by the project throughout its duration as a part of the manpower development programme. These training will be provided to relevant scientists of the NARS and AEZ/GIS network institutions. The project by now, organized (a) two-days sensitization workshop where 100 senior level officers have been sensitized on AEZ/GIS; (b) through consultative group meetings (5 days duration) on different components of database development and acquisition 125 scientists, extension workers have been trained made aware of AEZ/GIS; (c) through systems training (total 60 days) core BARC and network officers total 50 have been trained and (d) through a training workshop at the Hajee Danesh Krishi College, Dinajpur, 125 teachers, researchers, extension workers and NGO's have been trained. One orientation workshop, one 2-month training and one 5-days edge matching training/workshops were also organized. These are seen as a key element for the dissemination of AEZ/GIS knowledge and information. As there has been considerable delay in the project start and system installation, and considering the reality of time required to organize training activities some minor changes are suggested.

- a) Three training courses of 2-month duration each is being organized for the mid level scientists, extension workers and network agencies (15-20 trainees). One training course will be held annually for the first 3 years of the project's life. These courses will concentrate on training in AEZ/GIS methodology and application inclusive of inputs to environmental impact assessment and disaster preparedness with hands-on computer experience (total number of persons trained will be 331). By now 3 numbers of 2-Months courses has been implemented and 45 persons trained.
- b) A series of three types of 2-week/1 week duration training courses will be organized every year for AEZ/GIS user groups throughout the project's life. Each course will cater up to 15-18 trainees (Maximum). In addition, workshops/Seminars will also be organized.

Type-I: Three Training Courses will be held for the extension and research workers, network and academic institution at the planning/field teaching level on the use of AEZ/GIS methodology to develop their capabilities and to appraise agroecological constraints to crop/agricultural production and diversification (total persons trained will be over 45 nos.)

Type-II: Three Training Courses are aimed to involve trainees from AEZ/GIS network, relevant agencies and will concentrate on the use of AEZ/GIS database and GIS application for assessment of different cropping/farming systems (total persons trained will be over 45).

Type-III: Three training courses will be held, trainees will be drawn from AEZ/GIS network and other participating agencies and will concentrate on the application software in natural resources management (total persons trained will be over 45).

By now 8 numbers of 2-week training (120 persons trained), and 3 numbers of 1-week/5days/3days training (166 persons trained) executed.

- c) There will be several short duration (1/2/3 days each) workshops/seminars involving participants at the decision-making level from the member agencies within the Bangladesh AEZ/GIS Network and others. The main objective of these is to sensitize them on the AEZ/GIS database and defining and maintaining their roles in mutual collaboration and cooperation in formulation and implementation of agricultural development activities. These will be organized both in Dhaka and outside. By now 620 senior level decision makers sensitized.

UNDP inputs to support the in-country manpower development programmes will be provided in accordance with the relevant UNDP/GOB guidelines. In view of the recent enhancement of the salary of the Government Staff, the rate of TA/DA has also changed. Further, BARC has revised the rate for the trainers (from Tk. 250/- to Tk. 500/-) and trainees (from Tk.150 to Tk. 250) per day. Revised rate includes, provision of training coordinators allowance @ Tk. 300 per day and payment to the support staff (four persons per day @ Tk. 50/- per day per person). For uniformity of the BARC executed all training programmes and since UNDP rule does not cover all related essential things, BARC system shall be followed where applicable. Trainers and trainees from BARC and other participating agencies will be selected/ nominated by BARC/concerned agencies for the duration of training courses under arrangements to be made by the project management.

5. Updating and Incorporation of Socio-economic Data

The AEZ/GIS system needs to be updated and enlarged with data on the socio-economic factors of agricultural production with map or image data and with additional appropriate models to allow for greater ability and accuracy in resource planning for agricultural development. Use of it in respect of technology generation/transfer and adoption by the users will be limited and ineffective if farmers' socio-economic situation is not considered. The project, by now has organized consultative group meetings, expert consultants in this area and through the formation of a committee, the project could collect different socio-economic data/information. For uniformity and country wide collection of data a format has been developed. Further 4 contract research projects through BARC's ARMP funding has been successfully implemented and digital information stored.

6. GIS

The GIS equipment were purchased by FAO with the endorsement of GOB/BARC and their contractor did the installation. The GIS installation could start functioning and the system was formally handed over by the FAO's contractor only on 27 April 1997. Through manpower development and



utilizing the computerized GIS database, the project will develop a methodology and related procedures to assist agricultural production planning at the National, District and Thana levels by working out scenarios for optimal allocation of land and other resources for various land uses which will simultaneously meet self-sufficiency targets and maximize revenues within the agricultural production possibilities and the input availability constraints of the country. The methodology and procedures developed will meet present and future needs for land use planning analysis and population supporting capacity assessments and risk management at national, district and Thana levels.

6.1 Computer Hardware & Software

An assessment of the need of computer hardware and software was done by an expatriate System Analyst/GIS Specialist in 1996. The visiting FAO Specialist took note of the existing resources of BARC Computer Centre and prepared a list of GIS Computer hardware and software. That list was further reviewed by a FAO staff from Rome, BARC personnel, local and expatriate consultants of the project and a final list was prepared. FAO, Rome through their tendering system ordered the computer hardware and software and installed the system by the supplier as a part of the contract.

7. Donor Inputs

The project is being financed by UNDP and through arrangement, FAO is providing technical assistance. The grant covers the following items:

- a. GIS/Computer Information Systems Specialist (International) - 36 person months (Worked from 1 March 1997 to 29 February 2000).
- b. Agro-Climatology Specialist (International) - 6 person months (One already worked for the period in three splits).
- c. Expert Systems Specialist (International) - 6 person months (One already worked for the period).
- d. GIS Specialist (International) - 2 person months (One worked for the period).
- e. Land Resources Specialist (local) - 36 person months (working since 1 June 1997 to 31 May 2000).
- f. Socio-economic Specialist (local) - 36 person months (One worked for 5 months during December 1997 to April 1998 but resigned, second one worked for 16 23 months during 9 August, 1998 to 31 December 1999 but resigned and third one worked 14 months during 1 March 2000 to 30 April 2001).
- g. System Analyst/Programmer (local) - 44.23 person months (worked during 24 July 1997 to 30 April 2001). The qualification and experience was revised taking into account the availability of the suitable candidates and specific need of the project. Post-facto approval for the selected persons sought and was given from the date of joining (approval of revised TAPP). Considering the need and urgency of utilizing the services of System Analyst/Programmer, the provision of additional 6 months local consultants fund on local Agroclimatology specialist was converted and with the TPR meeting approval utilized accordingly (TPR meeting of 21 March 2000).

- h Agroclimatology Specialist (local) - 12 person months (one worked during 1 June 1997 to 31 May 1998).
- i Agronomist/Farming Systems specialist (local)-24 person months (worked during 1 June 1997 to 31 May 1999.).
- j GIS Hardware, Software and accessories
- k Computer facilities, maintenance and contractual services
- l Three Vehicles and maintenance
- m Audio visual equipment and supplies for training
- n All costs relating to organization of Training, workshops, seminars, etc. (in accordance with BARC/UNDP guidelines as applicable).
- o Foreign training and study tours for the BARC/MOA, Planning Commission officials and for NARS/user agencies.
- p Backstoppings by FAO

8 Execution and implementation arrangements

The project is being financed by UNDP and GOB. The Bangladesh Agricultural Research Council (BARC) is working as the Executing Agency. Food and Agriculture Organisation (FAO) of the United Nations (FAO) is providing technical and other necessary assistance under a cooperating agency agreement with BARC, cost of which will be covered through donor's inputs.

In implementing the project components, existing facilities of NARS institutions, LGED, SPARRSO, BMD, DAE, BWDB, and Universities etc. will be used for increasing project effectiveness. In order to ensure appropriate utilization of project facilities and resources by the participating institutions particularly the institutions under MOA, the job of a project Implementation and Coordination Committee will be done by the AEZ/GIS Network formed by govt. notification No. Krishi 3/Gha-1/90/16(6)29 dated 8-1-90.

Institutional and Coordination Arrangements

Institutional Arrangements

Project activities are being implemented by the Soils Division and Computer Center of the Council. The project is managed by a National Project Director (NPD) in cooperation with the core-staff of BARC. The project is being run in accordance with the provisions of TAPP/ProDOC and as per set policy guidelines of BARC/GOB/UNDP.

FAO is acting as an UN implementing Agency. It is providing (a) the external services and facilities as set out in the project document, (b) technical screening of the local consultants/experts to be recruited by the Executing Agency and (c) technical and operational monitoring, supervision and backstopping for the achievement of project objectives in their entirety.



A small component, for hiring the services of private sector digitizing contractors, has been included in the project. This arrangement will provide the high capacity needed for digitizing AEZ/GIS data in the initial stages of the project. Furthermore, this arrangement will contribute to building up a private sector capacity which can be expected to provide longer-term benefits for other GIS activities in Bangladesh. The executing agency will prepare the necessary specification for digitizing standards and will monitor data input for quality control. In case there is any difficulty in execution of this contract by BARC, UNDP/FAO assistance to perform the job on behalf of BARC will be sought.

Technical Implementation Advisory Committee

In the light of the decision in a tripartite meeting of BARC-FAO-UNDP a Technical Implementation Advisory Committee (TIAC) has been constituted by GOB vide MOA's memo no. Krishi/3/BARC/TAPP-5/96/237 dated 18-07-96 with the following members and TOR:

The Committee:

- | | | | |
|----|--|---|------------------|
| 1. | Member Director (Soils)
BARC | - | Convenor |
| 2. | Mr. Mahbub Ahmed
Director (Computer), BARC | - | Member |
| 3. | Dr. Sk. Gulam Hussain
PSO (Soils), BARC | - | Member |
| 4. | Mr. Md. Abeed Hossain Chowdhury
System Analyst, BARC | - | Member |
| 5. | Mr. Md. Anwar Iqbal
PSO (Soils), BARC, & NPD, GIS Project | - | Member-Secretary |

Terms of Reference

- a) To guide the implementation of decisions regarding the AEZ Network in all policy planning and incorporating those in the GIS Project.
- b) To help provide additional technical inputs to the AEZ network.
- c) To render assistance to the GOB and BARC in respect of selection of project personnel (local and expatriate), their assignment and evaluation of their performance.
- d) Identification of programme needs and designing the training programme as per work-plan of the project.
- e) To assist in selecting the personnel for trainings, fellowships etc. as per provisions of the project.
- f) To monitor the implementation of the project and advise the National Project Director (NPD) on all related matters.
- g) To keep the GOB and BARC informed regularly on the progress of implementation of the project and any other related issues.



- h) The committee will meet at least once in a month to advise on the technical matters to help ensure smooth progress of the project activities.

The committee will be provided with all necessary logistics support (secretary, transport etc.) by the GIS Project at BARC.

Coordination Arrangements

Six important sources of information relevant to planning for agricultural development currently exist in Bangladesh. These are:

- i) The AEZ database and land resources appraisal system housed in BARC;
- ii) Space Research and Remote Sensing Organization (SPARRSO), which operates a ground receiving station for acquisition of data from meteorological satellites on a daily basis and can acquire LANDSAT and SPOT imagery;
- iii) Soil Resources Development Institute (SRDI) is conducting a semi-detailed survey under the Thana Nirdeshika programme for generating thana-wise information on land, soil resources, etc.
- iv) Bangladesh Meteorology Department (BMD) has a wide network of meteorological stations all over the country. The generated information includes temperature, rainfall, humidity, solar radiation, cloud coverage, wind speed/velocity etc.
- v) Bangladesh Bureau of Statistics (BBS), as a source of statistical and census data having a comprehensive system of geo-codes (small Area Atlas of Bangladesh) which provides a consistent and definitive approach to administrative units; and
- vi) Bangladesh Water Development Board (BWDB)/Water Resources Planning Organization (WARPO), as a source of water resources data for the whole country based on 60 planning areas comprising a unique set of hydrologic catchments or watersheds.

There are currently over 22 GIS installations in Bangladesh of which several are government organization, universities, and NGOs. They are different in capacity and in handling issues. ARC/INFO is the GIS software that is used in almost all of the installations. Among these installations LEGD, SWMC, EGIS, and SRDI have UNIX based ARC/INFO software while the others are a mix of Windows NT and DOS and Windows versions. The SPARRSO configuration is used in satellite imagery studies in such areas as agriculture, meteorology, flood monitoring, forestry and oceanography. Steps are also being taken to improve delivery of satellite data in microcomputer form which will enhance access to such information by outside users. A GIS installation has been installed through USAID assistance to the Flood Action Plan (FAP-19) under the newly established Flood Plan Coordinating Organization (FPCO) and in collaboration with SPARRSO. The BBS configuration is being introduced to automate the cartography associated with census and hence is primarily for in-house use. The Local Government Engineering Department's (LGED) GIS facility is mainly to provide information on local level infrastructure. Thus it is clear that several organizations are using GIS technology to fulfil their mandated objectives. But, none of the organizations is addressing the complexity in agriculture and its development. As such, this project is unique in its character and is not duplicating to the activities of any other institutions.



The AEZ/GIS Network

The Bangladesh Agro-ecological Network (AEZ) was formed by GOB vide MOA's memo no. Krishi-3/Gha-1/90/16(6)29 dated 8-01-90 in 1990 and consists of:

Executive Chairman, BARC	-	Chairman
Joint Secretary (Extensions), MOA	-	Member
Joint Secretary (Local Government), LGED	-	Member
Director, BMD	-	Member
Director, BSRI	-	Member
Director, SRDI	-	Member
Director, (Research), BRR1	-	Member
Director, (FSD), DAE	-	Member
Director, (Agriculture), BJRI	-	Member
Director, (Hydrology), BWDB	-	Member
Director, (Research), SPARRSO	-	Member
Director, (Computer Centre), BARC	-	Member
CSO, (Soil), BRR1	-	Member
CSO, (Agronomy), BARI	-	Member
CSO, (Soil), BINA	-	Member
CSO, (Agri-economics), BARI	-	Member
CSO, (OFRD), BARI	-	Member
Dr. Aminul Islam, Prof. Soil Sci. Dept. DU	-	Member
Dr. Altaf Hossain, Prof. Agronomy Dept. BAU	-	Member
Member-Director (Soils & Irrigation), BARC	-	Member-Secretary

The TOR of the Bangladesh Agro-ecological Network covers the following activities:

- Establishing policy for the utilization of the AEZ database;
- Assessing the effectiveness of the AEZ database and land resource-appraisal reports in agricultural and other planning purposes.
- Ensuring the participation of all concerned organizations for updating and maintenance of AEZ based land information system.
- Ensuring the use and familiarization of AEZ information in text, tabular and map forms to all concerned, involved in agricultural and production planning activities.
- Giving importance to the use of AEZ information to meet all kinds of natural disasters and to ensure its use in the preparation of post-disaster agricultural rehabilitation programmes.

In the Inception Meeting of the GIS Project held on 24th July 1997 at MOA under the chairmanship of the Secretary, MOA and participated by UNDP, FAO decided that, the Network will be renamed as the AEZ/GIS Network and the membership may be modified/enlarged by the Network as needed. The process of reorganising/expansion of the AEZ/GIS Network is continuous.



National Project Director (NPD)

A detailed job description for the National Project Director is shown below:

Starting date: July 1996

Duration : 66 months

Duty station: Dhaka

Duties: The National Project Director will be the executive head of the project and will spend at least 15% of his time for the project activities. He will supervise all project activities and of the project staff (foreign and local). In consultation and Coordination with BARC and the AEZ/GIS network and with the active cooperation of the national and international consultants the incumbent will:

- prepare an inception Report which will include the detailed project work plan;
- administer the implementation of project activities, and funds;
- coordinate the administrative, training and other operational activities;
- direct the formulation and development of land information applications, the validation of results and the dissemination of products;
- Implementation of training programmes, workshops and study tours within the framework of BARC management;
- coordinate AEZ/GIS network activities and promote the flow of information within the network;
- supervise and ensure the technical and other reporting of the consultants;
- prepare the progress reports, the project performance, and evaluation reports and the project terminal report for clearance by UNDP/FAO and present in appropriate forum/authority.

The NDP will be authorised by the Government to manage the project and will be held responsible for the use of inputs provided under the project and ensure the achievement of project objectives

At present there are 13 posts available at the BARC Computer Centre:

- 1 Director;
- 1 Senior systems analyst;
- 1 System Analyst
- 2 Programmers
- 2 Junior Programmers
- 2 Senior Computer Operation Officers
- 4 Data Entry Officers.

The Director, Senior Systems Analysts, Programmer/System Analyst will act as counterpart either individually or jointly to the expatriate GIS/Computer Information Specialist, Expert System Specialist and to the local consultant on Land Resources, Agroclimatology, Computer System Analyst. Core scientists of Soils, Crops, Computer, AERS and other Divisions BARC will be involved with the local and foreign Specialists. Apart from the core counterparts, most of the other staff of BARC

computer centre will spend at least 30% of their time on the project activities. Persons trained abroad, on their return will devote 100% of their time in GIS Project activities.

Although the NPD and the BARC core staffs are to devote at least 15% and 30% of their respective time for the development of GIS project activities, but, in reality, they have to work almost full time to release the project workloads. In fact, most of the days they have to work beyond office hours till late evening on all working days and also often on weekly holidays to keep pace with the perpetuating workloads. This is particularly true for the National Project Director and the Director (Computer), BARC. In view of the amount of additional labour, time, and devotion they have been putting to keep the project activities up-to-date with the planned target, they deserve incentives in the form of honoraria/remuneration/allowance on regular basis equivalent to one month's basic salary per month for the NPD and for selected core staff one month's basic salary per year.

Office accommodation facilities and supplies

The BARC has provided adequate computer space from the existing Computer Centre area as follows:

Items	Number	Unit area (m ²)	Total area (m ²)
GIS work station	2	4	8
Delivery development/ digitizer work station	2	5	10
X-Y Plotter	1	2	2
Storage area (map cabinets, etc.)	1	3	3
Computer staff offices (for 4 persons)			32
		Total Area	55 m ² (592 ft ²)

Further BARC has provided 6 rooms for office space, for the long-term international and national consultants. The area allocated for training rooms in the new BARC Computer Centre is adequate to meet the needs of the GIS trainings.

Telephone and Internet

Additional furniture (4 lakh) and two Telephones (4 lakh) have been provided for the project by GOB. The Telephones are used for office management, arranging training programmes and to maintain liaison with the participating institutions in Bangladesh. For smooth running of activities, communications has to be made by the project office and the NPD, during and after office hours and during holidays also. The NPD is always wanted, by the BARC authority, UNDP, FAO, Ministries and by the AEZ/GIS network institutions during and after office hours. NPD also being the training coordinator has to maintain contact with the trainers and others off and on. At present, the NPD does not have any other telephone in his residence. Considering the emergency and importance of a Telephone in the residence of NPD, one of the telephones has been approved by the Executive Chairman, BARC to be installed at his residence. Another telephone is operational at the GIS project office which is used by the office staff and project consultants.

Internet access is vital for GIS project development. With the installation and handing over of the GIS system on 27 April 1998, making provision of networking and the purchase of necessary software, it is a felt-need that the project should have Internet facility for global communication and to be up-to-date with the day-to-day development. It is proposed that one more telephone be installed at the project office. This additional telephone will be used for dedicated Internet connection of the project. Single dedicated telephone will enable five user to have the access to internet simultaneously as the system has got network workstation facility. For installation and operation of this one additional telephone, no additional fund will be needed from GOB contribution. The matter was discussed in the TPR meeting held on 29 July 1998 and this has been agreed (Minutes of the meeting may be seen).

Equipment

A list of equipment purchased is given in Part F-2 (45).

The government has paid CD VAT amounting Tk. 69.27 lakh for equipment imported for the project.

Staffing and Remuneration:

The approved TAPP was discussed in the SPEC meeting held on 17.04.1993. TAPP was recasted according to the decisions of the SPEC and follow-up meetings (for details see Annexure I). The recast TAPP was again placed in the SPEC meeting held on 17.5.94. The decisions of the SPEC meeting (17.5.94) and the actions taken there on are given in Annex II. One of the decisions (No. "GA") is that the local/foreign consultants should be provided with salary and allowances in accordance with the GOB rules and procedures. As regards GOB rules the Planning Commission provided BARC with a circular (No. ERD/IA-9/A-1/90/604 dated 3.11.92) on the determination of fee/remuneration of local Consultant/Advisor, which is contained in the ERD Guideline, October 1992. This circular states that the fee/remuneration of Local Consultant/Advisor shall not fall below 25% of the fee/remuneration of the international/expatriate consultant/advisor.

It may be mentioned here that in the approved TAPP the cost/person month of the Expatriate consultants ranges between Tk. 4.94 and 5.73 lakh. This cost includes fee/remuneration, air travel and home leave expenses, children education allowances, health insurance/medical allowance agency contribution of provident fund etc. In order to determine the fee/remuneration of the local consultant BARC requested FAO/UNDP to provide with the break-down of expatriate consultants' per month cost into fee/remuneration, air travel and home leave expenses, education/medical allowances etc. However, after repeated requests (31 July 1994 and 14 August 1994) UNDP responded on 21 August 1994 giving the following points:

- (i) "National consultants in all UNDP projects are paid according to an agreed common salary scale which was forwarded to the ERD under cover of UNDP's 13 June 1993 letter. Until further changes are made, UNDP will continue to be guided by these salary scales". As per global rule UNDP salary scales for National Consultants/Experts (employed for more than 3 months period) has now been changed and ranges between Tk. 44,000 and Tk. 1,06,000 per month (as per UNDP Memo No. PER/262/5/2 dated 10 September 1997) depending on the professional experiences and qualification. The remuneration of the National Consultants thus has been revised now with effect from 1 September 1997, as laid out by UNDP. In view of the revised



salary structure provided by UNDP as mentioned above the per month cost provision for the local Consultants has been re-budgeted.

- (ii) The staff salary has also been enhanced by UNDP in line with the consultant and is budgeted accordingly. This has been approved for this TA project and implemented.
- (iii) "The NPD of the Nationally Executed Project does the same job as the CTA of UN implemented projects but without any benefit. Remuneration of NPD and the core staff is vital for the success of the project. For the NPD, one months basic/month from the start date of the project and for the core staff one months salary/ year from the project start has been proposed and budgeted. This has been approved under GOB funding and already paid to the core staff as per release of fund by MOA. The NPD's remuneration could not be paid until now, as MOA has issued order saying that, only full time NPD is to be paid from the project. This is however, not the case as the NPD is a part-timer (page 17) and he does not get any salary/remuneration from the project. Moreover, the UNDP also does not have such funding provision because this project is under national execution".
- (iv) Five local consultants and on an average 2 foreign consultants always work with this project. Besides, it has 12 core staff and 6 project staff but without a MLSS. Day to day photocopying work has to be done by the staff, which hamper normal office functioning. Besides, for delivery of letters there is none to assist. As such one Messenger-cum-Photocopy operator is proposed to be recruited and is budgeted under GOB contribution.
- (v) For the GIS project activities, field visits are organized, which is participated by the foreign, local consultants, NPD and the core BARC staff. Of late, UNDP/MOA has agreed to pay TA/DA to NPD and other BARC core staff as per approved UNDP rate (Minutes of the TPR held on 29 July 1998 may be seen). UNDP rule allows different rates which will be applicable for payment of TA/DA to NPD and BARC core staffs working for the project. Details may be seen in UNDP's circular ICSC/CIRC/DSA/268 dated 5 September 1997.

TAPP PART D-2

PROJECT OBJECTIVES (29)

Main objective of the project is to transfer the results obtained by the Land Resources Appraisal Project (Agro-ecological resources) to agricultural research, extension and development planners and scientists at national, regional, district and Thana levels. Objectives may be specified as follows:

- a. To develop Manpower on Land resources and computer use.
- b. To establish a GIS based computerized land information system.
- c. To utilize the AEZ data base through the use of GIS for crop production, crop diversification and disaster preparedness programme planning.
- d. To strengthen efforts of the agricultural extension services to develop location specific technology packages through the establishment of an effective interface with the users.
- e. To prepare optimal scenarios for land use planning at national, district and thana levels.

- f. To update data on land resources.
- g. To validate the AEZ/GIS data base through field verification.
- h. To incorporate Socio-economic factors in the AEZ /GIS land suitability data base.

CONSEQUENCES IF NOT APPROVED (30)

This is an approved on-going project. The project has been revised and re-phased which needs approval.

If the present AEZ system is not expanded into a full-fledged GIS, it will not be possible to input and process geographical data or generate output in the form of maps on demand which combine user specific spatial data combinations. This will restrict the scope of development planners, agricultural research scientists and extensionists. Under the AEZ system, it is possible to show what kind of physical resources exist in the country and accordingly, prepare present action plans based on physical parameters. By expanding it to a GIS system, it will be possible to combine physical and socio-economic parameters, show what and where resources are, update both attribute and geographical data, prepare present action plans and simulate possible future values and scenarios for planning future sustainable development quickly.

LINKAGE TO OTHER PROJECTS/ORGANIZATIONS (31)

The project has bearing (input, output, or both) on most agricultural programmes and projects. The project, guided by the Bangladesh Agroecological/GIS Network, builds up programmes, have a monitoring role and coordinate and formulate the follow-up activities on GIS. The AEZ/GIS Network acts as a project coordinating body. In addition, important linkages are envisaged with national remote sensing data and environmental data collected by various agencies in the country. In this connection, the network members and the participating organizations as agreed since initiation, shall have to extend full cooperation and support.

Outputs of the project will be accessible to and be used and supplemented by SFFP, ASSP, Horticulture Research and Development, TCTTI, IPM, FAP studies and other projects dealing with environmental and disaster management.

GIS utilizing AEZ database will also be used by the national research institutes such as BARI, BRRI, SRDI, BJRI, BSRI, BTRI, BFRI, FRI, BLRI, BINA, BAU, DU, SPARRSO BMD, LGED and others. Effective linkages with WARPO, EGIS, SWMC, NMIDP, WFP and GIS of other agencies is being established.

TAPP PART - E : PROJECT OUTPUT (IN QUANTITATIVE OR QUALITATIVE TERMS) (32)

Preparatory Assistance

Preparatory assistance was rendered by one expatriate GIS Specialist (Ms. G. Martin) for two months prior to the actual start of the project to prepare and recommend the requirements on GIS hardware, software and other concerned inputs details. Further work was done by a visiting FAO



scientist from Rome and refinement at the RAPA, Bangkok and Rome. Specifications and recommendations made by the Specialist are compatible to other systems available in the country.

Technology Transfer

The project will enable training of a core group of professionals to operate the GIS and use its outputs through external and in-country training. On-job training and work of the consultants/experts with their counterparts will ensure professional development in this line and effective transfer of technology.

Training

Both long and short-term trainings (in country and outside) will be organized for the local scientists, extension workers and other users of both GOB and NGO's. Details provided in section 4.

Management Improvement

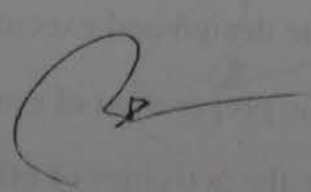
Since the project will be under National Execution, development of administrative and management capabilities for handling TA project will be ensured through training to be organized by UNDP. UNDP is still to organize/provide such training to the NPD and project personnel.

Institutional Support

The agricultural research institutions, extension department and the network members will get support in manpower development both on land resources, data handling and in computer.

ACTION EXPECTED AFTER COMPLETION OF THE PROJECT (33)

Trained Manpower will be available to make use of the system. High level people at the related agencies will be sensitized on the information base and its capability. The agricultural research institutes, extension department, AEZ/GIS network and other users, BAU, DU and other participating nation building Ministries /departments will continuously use data base of AEZ/GIS for their own programme and simultaneously will provide inputs for updating of the database as and when required. Cost recovery mechanism and payment system where applicable, to be followed in data/product transfer. BARC will continue to maintain the database and provide users services as usual. On expiry of the project, all properties (Computer, Transports, equipment, goods etc.) will be transferred to and used by the executing agency (BARC) for continuation of future activities. For smooth functioning of the activities government support in the form of operational fund and maintenance cost need to be ensured.



PART F - 1 : PROJECT INPUT PERSONNEL

EXPATRIATE CONSULTANTS (34)	PERSON MONTH	NO. OF CONSULTANT	COST/MANMONTH (LAKH TK.)*
GIS/Computer Information System Specialist	36	1	5.2
Agro-climatology Specialist	6	1	7.5
Expert System Specialist	6	1	7.5
GIS Specialist	2	1	7.5
Unspecified Specialist	3	-	3.5
(TCDC programming/ short term foreign consultancy)			

* Rate has been revised by UNDP. The actual cost will however fluctuate with the change in the UNDP rate.

The number of consultants and their duration, salary was initially finalized in the meeting held at the Planning Commission on 08/5/93 and at BARC on 29/7/93.

TASKS AND QUALIFICATION REQUIRED (35)

(a) GIS/Computer Information Systems Specialist

Starting Date: March 1997

Duration : 36 months.

Duties: Will be the Team Leader of FAO experts assigned to the Project and Principal Technical Counterpart to the National Project Director. The incumbent will:

- assist the NPD and prepare a detailed work plan for the project inclusive of detailed terms of reference and schedule for short term consultants;

- advise the NPD and supervise the installation, testing and interactive operation of AEZ/ GIS hardware and software;

- Prepare comprehensive workplan of his/her own and of the project;

- develop GIS applications and coordinate the development of AEZ/GIS computer models and applications in the field like flood, drought and crop yield/loss estimation;

- In collaboration with national and international consultants initiate activities as desired by the project management.

- assist in the selection of trainees and venues for overseas training and study tours workshop/seminar and arrangements for such;

- assist in the design and execution of the in-country training programmes;

- assist in the preparation of comprehensive AEZ/GIS training materials and manuals;

- coordinate the activities of other FAO experts to the project.

- assist the NPD in selecting and appointing national consultants, trainees under the project.
- assist the NPD in preparing different project performance reports as and when required;
- assist the NPD in preparing interim reports and other reports for submission to the project evaluation mission when required;

Qualifications: The incumbent should have a relevant post-graduate degree with strong background of incorporating remotely sensed data into GIS as well as good GIS knowledge and programmer /analyst skills; minimum 10 years experience with land resources databases and applications is also required. Persons with only general knowledge of GIS are not suitable for this post.

(b) Agro-climatology Specialist

Starting Date: March 1998/March 1999

Duration : 6 months (divided into two/three missions)

Duties: Under the supervision of the National Project Director and under the guidance of GIS/Information Specialist and in close cooperation with the National Land Resources Consultant, other International and national Consultants, and relevant staff of BARC and participating research agencies, the incumbent will:

- arrange collection and collation of data on agroclimatology.
- assist, advise and update AEZ climatological and hydrological database;
- assist and advise on the development and testing of agro-climatological parameters in AEZ/GIS computer models and applications to meet present and future needs for land use planning and population supporting capacity assessments, environmental impact assessment, disaster preparedness planning.
- assessment of agro-climatological constraints to crop production and diversification;
- assist and advise on the design of the in-country training programmes, in the preparation of training material and manuals; and work as resource person.
- prepare a terminal consultancy report.

Qualifications: The incumbent should have a post graduate degree in agro-climatology or the equivalent; at least 10 years experience in agro- climatic aspects of tropical agricultural R&D and practical experience with computerized land resources database and applications.

(c) Expert Systems Specialist

Starting Date: January/March 1999 and February 2000

Duration: 6 month (divided into two missions).



Duties: Under the overall guidance of the NPD and under the guidance of GIS/Information and under the direct supervision of the GIS/Computer Information Systems Specialist and in close cooperation with the National Systems Analyst/Programmer, other International Consultants, and BARC Computer Centre staff, the incumbent will:

- assist and advise in the development and testing of an expert system with customized user interface to permit dynamic updating of both the data and knowledge base used in the AEZ/GIS configuration. The expert system developed should also provide a means of explaining the advice given and/or assessment generated. Risks in Bangladesh agriculture should get priority in the system development.

- validation of the suggested system(s).

- assist and advise on the design of the in-country training programmes and the preparation of training materials and manuals and work as trainer.

- prepare a terminal consultancy report.

Qualifications: The incumbent should have a post graduate degree in computer sciences or the equivalent; at least 5 years experience in the development of computerized expert systems in general and user interfaces in particular; and be familiar with land resource applications of GIS and expert systems. Should have degree/vast experience in agro-climatic aspects of tropical agricultural R&D and in the assessment of climatological constraints and their incorporation in computer models.

(d) GIS Specialist

Starting Date: July 1996 (immediately after project approval)

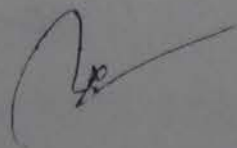
Duration : 2 months

Duties: Under the supervision of the National Project Director and in close cooperation with the relevant counterpart staff under the project and participating agencies of the Bangladesh Agro-ecological Network, the incumbent will do the job as detailed in page 11 under preparatory assistance.

Qualifications: The person in mind should have a post-graduate degree in computer science, very good command on computer hardware and software requirements. The incumbent should have a sound background of incorporating land resources and remotely sensed data into GIS as well as a good GIS knowledge and programmer/analyst skills. Should have minimum 10 years experience in this profession. Persons with only general knowledge of GIS are not at all suitable for this post.

(e) Unspecified Specialist (International)

3 person months (details to be worked out by BARC/FAO in consultation with the international consultants). This input will primarily be used to support consultants for linking the system to regional network.



LOCAL CONSULTANTS (36)	PERSON MONTHS	NUMBER OF CONSULTANTS	COST/MANMONTH (LAKH TK.)*
Land Resources Specialist	36	1	0.88
Socio-economic Specialist	36	1	0.88
System Analyst/ Programmer	44M - 23D	1	0.62**
Agro-climatology Specialist	12	1	0.88
Agronomist/Farming Systems Specialist	24	1	0.88

* Salary revised as per UNDP's revised remuneration notification no PER/262/5/2 dated 10.9.97.

** Salary lower than others as the one worked with the project fall under that pay category of UNDP.

As per decision of the meeting held in Planning Commission on 08.05.93 and meeting held at BARC on 29.07.93, the number and duration of consultants have been decided as above.

TASK AND QUALIFICATION REQUIRED (37)

(a) Land Resources Specialist

Starting Date: June 1997

Duration : 36 months.

Duties: Under the direct supervision of the National Project Director and in close cooperation with the BARC counterpart, GIS/Computer Information System Specialist, other National and International Consultants, and relevant staff of BARC and participating agencies, the incumbent will:

- assist in developing manpower in agricultural research, planning and extension departments for the utilization of the land resources inventory and land suitability database of AEZ;
- conduct training course for technology transfer of the AEZ database;
- update the database of the land resources inventory;
- conduct sample ground truthing for land suitability assessment;
- carry out pilot tests for the socio-economic, climatological parameters developed for the land utilization types;
- provide location specific information with data and maps for the agricultural development programme through GIS.
- Prepare training materials and conduct training.
- Prepare reports as needed.

Qualifications: M.Sc/M.Sc. (Ag.) in Soil Science/agril. related subject with at least 10 years experience in soil classification, land evaluation/ management etc. or Ph. D./M.S. in a relevant subject with at least 7 years experience. Qualification relaxable for highly experienced candidate and preference would be

given to a person with experience in preparing AEZ models for the land resource appraisal of Bangladesh and for utilization of AEZ data base for agricultural development.

(b) Socio-Economic Specialist

Starting Date: December 1997

Duration : 36 months

Duties: Under the direct supervision of the National Project Director and in close cooperation with the BARC counterpart, GIS/Computer Information System Specialist, other National and International Consultants, and relevant staff of BARC and participating agencies, the incumbent will:

- collect existing socio-economic data, generate data for the country, check and refine them;
- gender issue and FSR data should be considered and integrated;
- prepare data sets required for incorporation with the AEZ database and GIS;
- integrate socio-economic factors with AEZ land suitability assessment models for GIS based land information system development;
- carry out sample ground truthing on land suitability assessment updated by incorporating socio-economic parameters;
- Prepare training materials and conduct trainings;
- Prepare reports as needed;

Qualifications: M.Sc.(Ag.)/ M.Sc. in agricultural economics/Economics/Rural Sociology with at least 10 years experience or Ph.D. in Economics, Agricultural economics/Rural Sociology or M.S. with 7 years experience in agricultural economic research and related activities. Qualification relaxable for highly experienced candidate and preference will be given to a person specialized in socio-economic factors leading to model development for land suitability assessment. Persons with experience in dealing with gender in development issues will be given preference.

(c) System Analyst/Programmer

Starting Date: July 1997

Duration : 44.23 months (with additional 8.23 months as per TPR meeting of 21 March 2000 approval).

Duties: Under the direct supervision of the National Project Director and in close cooperation with the GIS/Computer Information System Specialist, the international Expert Systems Specialist, other National and International Consultants, and staff of the BARC Computer Centre, the incumbent will:

develop, test and refine an AEZ/GIS expert system with customized user interface to permit dynamic updating of both the data and knowledge base used in the AEZ/GIS configuration. The expert system developed should also provide a means of explaining the advice given and /or assessments generated;

Develop and conduct hands on computer training in the use of the expert system and component AEZ/GIS models and applications, database management and updating;

Prepare comprehensive training materials and manuals and work as trainer.

Prepare reports as needed.

Qualifications: M.S./M.Sc. in Computer Sciences/Applied Physics and Electronics. M.Sc. Engineering/B.Sc. Engineering or the equivalent with at least 7 years experience in computer programming and analysis. Qualification relaxable for highly experienced candidate and preference will be given to a person with experience in the development of GIS, computerized expert systems in general and user interfaces in particular with familiarity in the applications of GIS and expert systems. In absence of response from qualified personnel, the panel of candidates selected by the competent selection board may be given post-facto approval with effect from the date of joining of the incumbent. Post-facto approval obtained as the revised TAPP of March 1999 approved by the competent authority).

(d) Agro-climatology Specialist

Starting Date: June 1997 and 1999.

Duration : 12 months

Duties: Under the supervision of the National Project Director and in close cooperation with the international Agro-climatology expert, the National Land Resources Consultant, other International and national Consultants, and relevant staff of BARC and participating research agencies, the incumbent will:

- collect and compile the necessary information for updating of AEZ climatological and hydrological database;
- assist in the development and testing of agro-climatological parameters in AEZ/GIS computer models and applications to meet present and future needs for land use planning and population supporting capacity assessments, environmental impact assessment, disaster preparedness, and
- collect information for assessment of agro-climatological constraints to crop production and diversification;
- assist in the design of the in-country training programmes and the preparation of training materials and manuals;
- refine and update LGP for different AEZ regions using water balance and reference moisture for different soils.
- compile a comprehensive crop-climatic-adaptability inventory.
- set-up and run potential biomass and yield calculations for key crops considered in different seasons at two levels of inputs and management practices.
- compile crop specific climatic requirement database involving specific climatic parameters constraining growth and yield formation of individual crops.
- set up agroclimatic suitability procedures for 48 crops of AEZ database

- prepare reports as needed.

Qualifications: The incumbent should have Ph.D. M.S /M.Sc in Science Subjects/ Meteorology, a post graduate degree/diploma /training in agro-climatology or the equivalent; at least 8 years experience in agro-climatic aspects (15 years in meteorology) of tropical agricultural R&D and practical experience with computerized land resources database and applications. Qualification relaxable for highly experienced candidate.

(e) Agronomist/Farming Systems Specialist

Starting Date: June 1997

Duration : 24 months.

Duties: Under the supervision of the National Project Director and in close collaboration with the counterpart from BARC, the National and international Consultants and relevant staff of BARC and participating research and planning agencies, the incumbent will:

- assist and advise in the development and testing validation of crop and land utilization type parameters in AEZ/GIS computer models and applications, to meet present and future needs for land use planning and population supporting capacity assessment, environmental impact assessment, disaster preparedness, and assessments of crop production and diversification prospects;
- collect FSR information on all components of farms e.g. crop, livestock, fisheries, etc., in line of AEZ database, generate information and arrange to include in the computer model;
- assist and advise on the design of the in-country training programme and the preparation of training materials and manuals and work as trainer;
- prepare reports as needed.

Qualifications: Ph.D. or M.S. in agronomy/agricultural science with 10 years experience. The incumbent should have a post graduate degree or the equivalent with at least 12 years experience in tropical agriculture, farming systems, R&D; and practical experience with computerized crop requirement databases will be preferred. Qualification relaxable for highly experienced candidate.



PROJECT PERSONNEL GOB. (38) MANMONTHS NO. OF PERSONNEL COST/MANMONTHS
 Nil (LAKH TK.)

NO. OF STAFF AVAILABLE (39) NO. OF STAFF AVAILABLE (40) NO. OF STAFF (41)
 FULL-TIME PART TIME TO BE RECRUITED
 6 12 Nil

TASK AND QUALIFICATION REQUIRED (42) : Laid out during recruitment

PROJECT PERSONNEL OTHERS (43)	MANMONTHS	NUMBER OF PERSONNEL	COST/MAN MONTH (LAKH TK.)*
Administrative Assistant	60	1	0.20*
Secretary-Cum-Word-Processor	110	2	0.165*
Driver	146	3	0.10*
NPD Remuneration (GOB) **	60	1	0.135
Core-Staff's Remuneration(GOB) **	30	6	0.13
Messenger-cum-Photocopy Operator (GOB)**	6	1	0.045
Total	412	14	

* Current rate approved by UNDP is effective from 1 June 1998. The rate changes after completion of every one year of service. For budgeting purpose however, uniform rate has been taken.

** Remuneration for GOB core staff has been included. One post of Messenger-cum-Photocopy Operator for 6 man-month has been budgeted. The matter has been discussed and agreed in the TPR (PPER) meeting held at MOA on July 29 1998. NPD's remuneration and allowance was in the originally approved TAPP. But, as UNDP's policy does not permit remuneration for nationally executed project staff, it could not be paid. The payment of remuneration of NPD and the core staff will vary with the change in their basic salary (new pay scale, annual increment etc.) of the incumbents.

ESTIMATED PERSONNEL COST (Lakh Taka) (44)	EXPATRIATE CONSULTANTS	LOCAL CONSULTANTS	PROJECT PERSONNEL GOB	PROJECT PERSONNEL OTHERS
Jan 96 to June 1998	106.00	41.20	-	6.80
1998-99	123.66	43.52	-	9.60
1999-2000	55.21	27.68	-	9.60
2000-2001	3.46	11.24	1.93	8.88
July 2001-Dec. 2001	-	-	8.98	3.71
Grand Total	288.33	123.64	10.91	38.59



TAPP PART : F - 2

PROJECT INPUT - EQUIPMENT

(Taka in Lakh)

SPECIFICATION OF ITEMS (45)	Exp. Jan 96 to June 98			1998-99			Project Total		
	Taka Cost FE	Taka Cost LC	Total Taka Cost	Taka Cost FE	Taka Cost LC	Total Taka Cost	Taka Cost FE	Taka Cost LC	Total Taka Cost
1. Computer Hardware, Software and peripherals: File Server (1), Work Station (2), Personal Computer (13), Laptop Computer (2), Laser Printer (2), InkJet Printer (4), Plotter (1), Digitizer (1), Scanner (1), ZIP Drive (2), UPS (13), and Softwares									
2. Airconditioner (3)									
3. Photocopier (1)									
4. Audio visual equipment: Television (1), VCR (1), Multimedia Projector (1), PA System (1), Over Head Projector (1), and Over Head Projection Screen(1)									
5. Vehicle (3)	188.35	69.27	257.62	12.95	-	12.95	201.30	69.27	270.57
TOTAL									

NOTE : List and specification of equipment to be procured in 1998-99 provided to FAO and is under process of purchase.

- CDST/CDVAT (as per NBR rule), will be paid by GOB. All vehicles and major portion of the equipment purchased in 1997-98 and rest will be purchased in 1998/1999/2000. Government has decreased the rate of taxes on computer hardware and software. This has contributed to the decrease of CD VAT amount for imported goods of the project.
- On expiry of the project, as per UNDP rule, all properties including the vehicles will be transferred to BARC (executing agency).
- Since the project area is whole of Bangladesh, project vehicles will be used for all such activities throughout Bangladesh.

ANNUAL PHASING OF ESTIMATED COSTS (46)

Year	FC.	LC.	Total
1996-98 Actual exp.	188.35	69.27	257.62
1998-99	12.95	-	12.95
1999-2000	Nil	Nil	Nil
2000-2001	Nil	Nil	Nil
Total	201.30	69.27	270.57

(Tk. in lakh)

TAPP PART : F - 3

PROJECT INPUT - TRAINING

SPECIFICATION (47)	INSTITUTION (48)	NUMBER OF PARTICIPANTS (49)	COST (50)
Local:	NARS/GO and NGO's	as narrated in Section-4	32.87*
Foreign:	NARS	3	99.90**
1 Training on Land Resources (12mx3) and 2 Training on GIS (6mx4)		4	
3 Study Tours (25-60 days) and 5 slots on study tours. Workshop, Seminars of 5- 12 days duration. Previous 3 plus 5 = 8 nos.	BARC/Users/pro ject related ministries	8	18.54**
Total			151.31

(Tk. in lakh)

ANNUAL PHASING OF THE ESTIMATED COST (51)

Year	LC	FC	TOTAL
1996-98 Actual Expn.	6.45	50.75	57.20
1998-99	10.47	40.99	51.46
1999-2000	7.00	23.40	30.40
2000-2001	3.95	0.00	3.95
July, 2001-2001, Dec.	5.00	3.30	8.30
TOTAL	32.87	118.44	151.31

(Tk. in lakh)

* In local currency

** In foreign exchange

TAPP PART : F - 4 PROJECT INPUT - OTHERS

SPECIFICATION (52) AND ANNUAL PHASING OF ESTIMATED COSTS (53)

Tk. in lakh

INPUT	1996-98	1998-99	1999-2000	2000-2001	July-Dec. 2001	Total
Office supplies & Computer consumables & Map	20.55	1.50	1.50	1.50	-	25.05
O&M of equipment and vehicle	5.52	2.50	2.00	1.00	1.85	12.87
O&M of computer	Nil	0.46	10.89	3.84	3.53	18.72
Reporting cost	0.50	0.50	0.50	0.18	0.82	2.50
Sundries	3.40	1.52	1.50	0.16	0.92	7.50
Furniture (GOB)	4.00	Nil	Nil	Nil	Nil	4.00
Miscellaneous (GOB)	Nil	1.31	Nil	Nil	Nil	1.31
Telephone installation & operation (GOB)-3 nos.	0.60	1.40	1.00	0.25	0.75	4.00
Local Digitizing contract	3.50	14.50	Nil	Nil	Nil	18.00
Internal Duty Travel*	2.83	2.32	2.33	1.15	1.17	9.80
Mission cost**	3.40	9.60	7.00	10.00	Nil	30.00
Total	44.30	35.61	26.72	18.08	9.04	133.75
FE**	3.40	9.60	7.00	10.00	Nil	30.00
FC*	40.90	26.01	19.72	8.08	9.04	103.75

* Includes TA & DA of all consultants, NPD, core and project staffs.

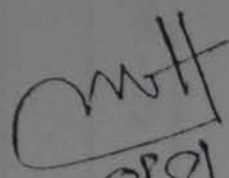
** In foreign exchange.

PROVISION IN FIVE YEAR PLAN (54)

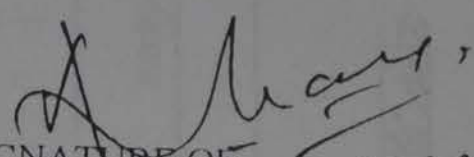
PROVISION IN ADP/ATAP (55)

Will be provided from the Block Allocation

Tk. 110 Lakh for the FY 2001-2002


8/8/01
Executive Chairman
Bangladesh Agricultural
Research Council, Dhaka

NO. OF ENCLOSURES : Ten


SIGNATURE OF
RECOMMENDING AUTHORITY (56) 20-9-2001

bdul Wahed Khan
Joint Chief
Ministry of Agriculture
Govt. of the People's Republic
of Bangladesh.

প্রকল্পের অনুমোদিত ও সংশোধিত ব্যয় বিভাজন

(লক্ষ টাকায়)

প্রকল্প ব্যয়										মোট		(+/-)
ক্রমিক নং	কম্পোনেন্ট	পরিমাণ		প্রকল্প সাহায্য		জিওবি				বৃদ্ধি/হ্রাস (%)		
		অনুমোদিত	সংশোধিত	অনুমোদিত	সংশোধিত	অনুমোদিত	সংশোধিত	অনুমোদিত	সংশোধিত			
১	২	৩	৪	৫	৬	৭	৮	৯	১০	১১		
১।	বিদেশী পরামর্শক	৪ জন (৫৩ জনমাস)	৪ জন (৫৩ জনমাস) পৃষ্ঠা - ২৩	২৯৩.৩২	২৮৮.৩৩	-	-	২৯৩.৩২	২৮৮.৩৩	-১.৭০		
২।	স্থানীয় পরামর্শক	৫ জন (১৫০ জনমাস)	৫ জন (১৫২.২৩ জনমাস) পৃষ্ঠা - ২৬	১১৯.০৪	১২৩.৬৪	-	-	১১৯.০৪	১২৩.৬৪	+৩.৮৩		
৩।	সহায়ক জনবল	১৪ জন (৪৪৪ জনমাস)	১৪ জন (৪১২ জনমাস) পৃষ্ঠা - ৩০	৩৫.৩০	৩৮.৫৯	১৩.৩২	১০.৯১	৪৮.৬২	৪৯.৫০	+১.৮১		
৪।	যন্ত্রপাতি	পৃষ্ঠা - ২৯	পৃষ্ঠা - ৩১	২০৩.০০	২০১.৩০	-	-	২০৩.০০	২০১.৩০	-০.৮৩		
৫।	প্রশিক্ষণ (বিদেশ)	পৃষ্ঠা - ৩০	পৃষ্ঠা - ৩২	৮৪.৮৪	৯৯.৯০	-	-	৮৪.৮৪	৯৯.৯০	+১৭.৭৫		
৬।	স্থানীয় প্রশিক্ষণ		পৃষ্ঠা - ৩২	৩৪.০০	৩২.৮৭	-	-	৩৪.০০	৩২.৮৭	-১.৩২		
৭।	শিক্ষা সফর		পৃষ্ঠা - ৩২	১৫.২৪	১৮.৫৪	-	-	১৫.২৪	১৮.৫৪	+২১.৬৫		
৮।	বিবিধ/অন্যান্য	পৃষ্ঠা - ৩১	পৃষ্ঠা - ৩৩	১২৫.৪৬	১২৪.৪৪	৯.৩১	৯.৩১	১৩৪.৭৭	১৩৩.৭৫	-০.৭৬		
৯।	সিডিভিভি		পৃষ্ঠা - ৩১			৮৪.২৭	৬৯.২৭	৮৪.২৭	৬৯.২৭	-১৭.৮		
মোটঃ				৯১০.২০	৯২৭.৬১	১০৬.৯০	৮৯.৪৯	১০১৭.১০	১০১৭.১০	০০		

29/05/2001

Government of the People's Republic of Bangladesh
Ministry of Agriculture
Section-3

No. Krishi-3/F-4/2001/ 269

Date : 28-05-2001.

Sub : Minutes of the Tripartite Review (TPR) Meeting on GIS Project.

The Tripartite Review (TPR) Meeting on GIS Project was held on 8-4-2001 under the Chairmanship of Dr. Shoaib Ahmed, Secretary (Incharge), MOA. The minutes of the meeting are forwarded for his kind information and necessary action.

for info
28.5.2001

Enclosed : As stated.

(Md. Sirajul Islam)
Sr. Assistant Secretary
Ministry of Agriculture

Distribution :-

Ph : 9554939

Fax - 8617040 (MOA).

1. Secretary, ERD
Sher-e-Bangla Nagar, Dhaka
2. Secretary, IMED
Sher-e-Bangla Nagar, Dhaka
3. Executive Chairman, BARC, Farm-gate, Dhaka.
4. Director General, Bangladesh Agriculture Research Institute, Gazipur
5. Director General, Bangladesh Rice Research Institute, Gazipur
6. Mr. Waheed Khan, Joint Chief, MOA
7. Dr. M.S. Islam Member-Director (Soils), BARC, Farmgate, Dhaka.
8. FAO Representative in Bangladesh
House No. 39, Road No. 8, Dhanmondi, Dhaka.
9. Resident Representative, UNDP, UN Building,
IDB Bhaban, Sher-e-Bangla Nagar, Dhaka.
(Attn: Ms. Shireen Kamal Sayeed, ARR, UNDP).
10. Mr. M. Anwar Iqbal, NPD, GIS Project, BARC, Dhaka.
11. Dr. Subash Das Gupta, National Programme Officer, FAO, Dhaka.
House No. 39, Road No. 8, Dhanmondi, Dhaka.

cc:

P.S. to Secretary, MOA

Proceedings of the Tripartite Project Review (TPR) Meeting of GOB, UNDP and FAO on Utilization of AEZ Database and Installation of GIS for Agricultural Development (BGD/95/006)

A tripartite meeting on the Utilization of AEZ Database and Installation of GIS for Agricultural Development (BGD/95/006) was held on 8 April 2001 at 10:00 AM in the conference room of the Ministry of Agriculture (MOA) under the chairmanship of Dr. Shoaib Ahmed, Secretary (in charge) MOA. The list of participants is attached at Annexure I.

The Chairman welcomed the participants and made introductory remarks about the project. Then he invited Mr. M. Anwar Iqbal, National Project Director (NPD) to make presentation on the project activities. The project's working paper had been circulated earlier among the members of the meeting.

The NPD initiated his deliberations by briefly elaborating the project's background activities; achievements, various other issues and problems. In his presentation he touched upon the followings:

The physical and technical attainments of the project till date were today over 98% and 90% respectively. Regarding expatriate consultancy the attainment was 100%. The rate of success in respect of training/manpower development was over 92%. Until February last 316 persons including 78 women were trained and over 620 high level decision makers and policy planners were sensitized on AEZ/GIS. The financial attainment of the project was 94.26% of the UNDP component and 70.0% of GOB fund up to February 2001. Collaborative programme/activities were being implemented and in some cases were on-going with several organizations, both at national and international levels.

The NPD added that much of the work had been accomplished and the rest was in progress. He briefed on some major unfinished activities that needed to be addressed.

The following problems/issues were highlighted by the NPD

1. Sustainability/continuation of the project activities.
2. Delay in the implementation of the GIS study tour.
3. Non-submission of the three FAO expatriate consultancy reports
4. Discontinuation of the Internet services to BARC by the FAO appointed equipment supplier, CiTech Ltd. Dhaka
5. Non-settlement of long pending matters related to audit objections.

Discussions:

The Secretary thanked the NPD for his presentation and asked him whether anything had been done on water logging under the project and cited the example of Beel Dakatia. He also referred to a news item and wanted to know whether it was agro-ecologically possible to grow tea in Dinajpur. In reply the NPD said that, nothing as such had been done on water logging like that in Beel Dakatia but water logging problem induced by inundation/flooding had been addressed in several project activities. Member-Director (Soils), BARC supplemented by saying that inundation is taken care of by BWDB. Regarding tea plantation in Dinajpur, the NPD said that AFZ/GIS database provides information on suitability of land/crop and it proves that there is need for land zoning in respect of suitability.

Joint Chief, MOA, appreciated the activities of the project. He however, expressed his concern about the pending FAO expatriate consultancy reports and wanted to know what the NPD has done in this regard. The NPD in his reply said, several reminders were issued to FAO from the project. Dr. Shubhas Dasgupta of FAO said that final payment had not been and will not be made until BARC/GOB give clearance on the reports. He informed the house that steps were taken for the implementation of the study tour by 20 April 2001.

Regarding the discontinuation of the Internet services to BARC, the Secretary wanted to know whether the matter had been taken up with CiTech Ltd. Dhaka, and informed to MOA. The NPD explained the matter in detail and said that as per arrangement of the liquidity damage agreement CiTech Ltd. Dhaka agreed to provide free services up to 30 November 2001. A tripartite agreement of FAO, BARC and CiTech Ltd. was signed twice under FAO's initiative, he added. The NPD did not report it to MOA as the contract was signed between FAO and CiTech Ltd. and as such they relied on FAO's action in this respect. The Secretary wanted to know whether CiTech Ltd. has been blacklisted. At this stage Ms. Shireen Kamal Sayeed mentioned that CiTech Ltd. would be blacklisted by UNDP and recommended the same should be done by FAO without delay.

Joint Secretary (Research), MOA, suggested that there should be some mechanism for cost recovery of the services provided, so that the project could become self-sustaining. The NPD informed the house that a cost-recovery mechanism had been developed and it was under the process of approval by the Governing Body of BARC. The UNDP representative, Ms. Shireen Kamal Sayeed added that there might not be much funds left after the payment of the FAOs expatriate consultants. She suggested that this meeting might be called its terminal TPR. The Secretary, MOA, opined that BARC should take some steps to run the project from other resources.

Dr. M.A. Hamid Miah, Executive Chairman, BARC, made a point that some of the unfinished tasks were to be completed with the savings. The NPD informed the house that there would be a saving of US\$ 0.221-0.311 million, from which some expenditure of UNDP/FAO will be deducted. Whatever is the case, with the balance funds, the project activities can somehow run upto June or even upto December 2001, he added. There are resource constraints in BARC as well as in GOB, informed the NPD, and he expressed his concern about providing required resources and timeliness in GOB funding. At this stage, Ms. Shireen Kamul Sayeed said that BARC should continue the unfinished work with its own resources. Finally she expressed UNDP's consent to an extension of the project up to 31 December 2001 at the latest. The Secretary, MOA, thanked UNDP for this favorable gesture. After threadbare discussions, the following decisions were taken.

Decisions:

1. GOB/UNDP agreed to extend the project up to 31 December 2001.
2. The pending study tour of the project will be completed as arranged by FAO by 20 April 2001.
3. Both UNDP and FAO will take necessary measures to blacklist C'Techo Ltd, Dhaka as early as possible
4. BARC will take necessary steps to institutionalize the programmes of this Project in its own establishment so that the unfinished activities can run after the project is over.
5. BARC will expedite the establishment of a cost recovery mechanism and get it approved by the Governing Body (GB) and GOB, and implement it.
6. FAO will take necessary measures for collection and submission of three pending FAO expatriate consultancy reports in acceptable form to BARC/MOA. No final payment should be made by FAO without BARC/MOA's clearance.
7. BARC will resolve the audit objections submitted by C&AG by June 2001 as per rules. MOA will take necessary action in this regard. BARC will also inform MOA about the action already taken by them.

The meeting ended with a vote of thanks from the chair.

Sd/-
24-5-2001
(Dr. Shoaib Ahmed)
Secretary (in charge)
Ministry of Agriculture

List of Participants

<u>Sl.No.</u>	<u>Name & Designation</u>
1.	Mr. Muhammad Fazlur Rahman, Joint Secretary (Res), MOA
2.	Mr. A. Waheed Khan, Joint Chief, MOA
3.	Dr. M.S. Islam, Member Director (Soil), BARC
4.	Mr. Md. Anwar Iqbal, NPD, GIS Project, BARC
5.	Mr. Mahbub Ahmed, Director, Computer, BARC
6.	Mr. Mohammad Harun-or-Rashid, Deputy Director, IMED
7.	Mr. Md. Abceed Hossain Chowdhury, Senior Systems Analyst, BARC
8.	Mr. Mohammad Seraj Khan, Senior Asstt. Secretary, ERD
9.	Mr. Subash Dasgupta, National Professional Officer, FAO
10.	Sk. Abdur Rashid, Deputy Secretary, MOA
11.	Dr. M.A. Hamid Miah, Executive Chairman, BARC
12.	Dr. M.A. Abdur Razzaque, DG, BARI
13.	Mr. Md. Abul Kalam Azad, Deputy Secretary (UN-I) ERD
14.	Mr. Muhammad Azim Uddin, SSO, AED, BARI
15.	Mr. Muhammad Ali Ashraf, Programme Officer, UNDP
16.	Mr. Bhuiyan Kamal Sayeed, Assistant Resident Representative UNDP

MANUAL
FOR
NATIONAL PROJECT DIRECTORS

For the Management of
UNDP - Assisted Nationally Executed Projects
In Bangladesh

August 1997

Economic Relations Division
Ministry of Finance

United Nations Development Programme
Dhaka, Bangladesh

- a) transfer of knowledge and technology skills and technical know-how and capacity building within national institutions to undertake the development activities;
- b) improvement of country's human resources, institutional support, management efficiency and national capacities; and
- c) ensuring better and efficient utilization of machineries and equipment by introducing new techniques to existing personnel.

4.C.5.2 Guidelines on preparation of TA project:

- a) Preparation of TAPP should proceed after the relevant development partners are identified and their agreement in principle has been obtained to fund the project.
- b) TA components of an investment project should be processed along with the normal approval exercise for an investment project (PP).
- c) TA project may include small amounts of capital investments as may be necessary for their efficient operation unless it is for transferring an equipment based technology for enhancing capacity of an organization. As for vehicles and office equipment (including computers) needed for a TA project, it should first be examined if these can be obtained from the surplus stock of the user agency, specially those obtained under other completed TA projects or completed TA Projects of agencies in the same sector.
- d) TA projects should not in principle, include any provision for creating new posts except where, without such creation, the execution of the projects is likely to be delayed and where the concerned Ministries/Divisions are not in a position to provide required manpower from their existing set-up. Such creation of posts shall be tenable only for the duration of the TA project.
- e) TA projects should provided for training where it is deemed appropriate for achieving project objectives. In such cases, short, medium and long term training needs should be indicated separating local and foreign training.
- f) All TA projects will provide for local counterparts. The objective is to ensure transfer of skill and expertise in addition to ensuring proper and timely implementation of the TA project. Local counterparts should be from within the existing personnel strength and be carefully selected. They should provide whole-time service and attention to the project and on completion of the project, their services should be utilised in the relevant field.

4.C.5.3 Revision of a TA Project

- a) A TA project shall have to be revised under the following circumstances:
 - i) changes in the scope and component of the project;
 - ii) changes in design; and
 - iii) increase in the cost due to inclusion of any new item not included in the original approved project.
- b) If the cost of a TA project exceeds 25% of its original cost, then approval of the appropriate approving authority will be required. Proposal for extending the implementation period of a TA project must be conveyed to the planning commission and ERD at least three months prior to the original date of completion of the project. No revision of the TAPP will be needed merely for time extension without involving increase in the cost.
- c) Proposal for post-facto approval of a TA project shall not be entertained.

- d) No revision to the TAPP will be required if the proposed increase in the total cost does not exceed 25% of the originally approved amount. Where the total cost increase exceeds this amount, approval of a revised TAPP will be required in accordance with the specified procedures.

The TAPP is an important document that the NPD should be familiar with. The Government budget to the project is provided in the TAPP. The TAPP should provide funds required for the mobilisation of Government inputs to the project as well as to meet the various local taxes the project is expected to pay (e.g., CDVAT) and normally not met by UNDP out of its resources to the project. If deficiencies are observed in the TAPP, the NPD should initiate action to revise the TAPP.

4.C.5.4 Approval Procedure of TAPP

The procedure followed by the Government of Bangladesh for approval of a T.A. project is given below:

- a) The Departmental Special Project Evaluation Committee (DSPEC) is the competent authority to consider and recommend a TA project for approval of the minister of the concerned Ministry/Division where cost does not exceed taka one crore. After approval of a TA project, the concerned Ministry/Division shall send copies of the approved TAPP to the planning commission and the ERD for necessary action. However, any TA project which leads to or may lead to capital investment must be approved by the special project Evaluation Committee (SPEC) of planning commission, irrespective of its cost.
- b) TA projects costing above Taka one crore shall have to be considered and recommended by the Special Project Evaluation Committee before its approval by the minister for planning.
- c) Where the DSPEC/SPEC has determined that revisions to the TAPP are necessary before approval of the TAPP can be finalized, such revision should normally be carried out and the TAPP resubmitted within a period of two weeks.
- d) Should under special circumstances, finalization of TA negotiation with a development partner becomes essential before the TAPP can be processed for approval anticipatory approval of such a proposal may be accorded by the concerned minister as per the approval limit, mentioned earlier. Such approval will be subject to post-facto confirmation in a subsequent meeting of SPEC/DSPEC to be held within three months.
- e) Projects which will have to go to the SPEC, need not be considered by the DSPEC. The SPEC/SPEC will ensure that overlapping and duplication of similar activities through other TA projects under execution are avoided and that the projects are in conformity with the plan objectives and sectoral development programmes and activities.

4.C.6 Approval of Project Document

Once the TAPP is approved by the competent authority, the ministry/division concerned will communicate with the ERD for finalising the project agreement with the donor agency (UNDP in this instance).

ERD will discuss the project with UNDP in association with representatives of the concerned ministry/division. UNDP, in consultation with the ERD, will arrange for the preparation of the project. This is usually done through a project formulation mission. UNDP generally ensures the participation of the relevant specialised UN agency, particularly if the agency is expected to be associated with the implementation of the project.

The formulation mission, with the assistance of the requesting organisation (ministry/division), prepares the project in the required format, i.e., the Project Formulation Framework (PFF).

Government of the People's Republic of Bangladesh

Ministry of Agriculture

Research Wing

Sec - 3

No. Krishi-3/f-4/2000(Part)/ 263

Dated : 19-04-2000

Sub : Proceedings of the Tripartite Review Meeting.

Please find herewith a copy of the Proceedings of the Tripartite Review Meeting of GOB, UNDP and FAO on "Utilization of AEZ Database and Installation of GIS for Agricultural Development" held on the 21 March, 2000.

(Md. Ashfaul Islam)
Assistant Secretary

Distribution:

1. Secretary, ERD,
Sher-e-Bangla Nagar, Dhaka
(Atten: Mohd. Seraj khan, Sr. Asst. Secretary).
2. Executive Chairman, BARC, Farm gate, Dhaka.
3. Mr. Waheed khan, Joint Chief, MOA.
4. Dr. M.S. Islam, Member-director (Soils), BARC, farmgate, Dhaka.
5. Ms. Khodeza Begum,. Director, IMED, Sher-e-Bangla Nagar, Dhaka
6. Ms. Shireen Kamal Sayeed, ARR, UNDP, Dhaka
7. Mr. M. Anwar Iqbal, NPD, GIS Project, BARC, Dhaka
8. Mr. Mahbub Ahmed, Director, Computer Centre, BARC, Dhaka.
9. Dr. Subash Das Gupta, National Programme Officer, FAO, Dhaka
10. P.S. to Secretary, MOA.
11. PO to Joint Secretary (Res.) MOA,

নির্বাহী চেয়ারম্যান এর দপ্তর বি এ অফিস সি, ঢাকা	ভাইসি নং- জিপি:
সঃ পঃ (প্রঃ ও অঃ)	পরিঃ (প্রঃ ও অঃ)
সঃ পঃ (এ ই আর এস)	পরিঃ (এ ই আর এস)
সঃ পঃ (সিঃ)	পরিঃ (সিঃ ও জি ই ইউ)
সঃ পঃ (সিঃ ও সুলতাঃ)	পরিঃ (প্রশিক্ষণ)
সঃ পঃ (মুক্তিঃ)	পরিঃ (পুষ্টি)
সঃ পঃ (কৃষি প্রকৌশলী)	পরিঃ (কৃষিঃ)
সঃ পঃ (মৎস্য)	পরিঃ (সাইক) AIC
সঃ পঃ (বন)	অন্যান্য
সঃ পঃ (পরিঃ ও প্রশাসন)	

AA

PL - file

30/4/2000

23/4/2000

AA
pl. file 21

Proceedings of the Tripartite Project Review (TPR) Meeting of GOB, UNDP and FAO on Utilization of AEZ Database and Installation of GIS for Agricultural Development (BGD/95/006).

A tripartite meeting on utilization of AEZ Database and Installation of GIS for Agricultural Development was held on 21st March, 2000 at 10:00 AM in the Conference Room of the Ministry of Agriculture under the Chairmanship of Dr. A.M.M. Shawkat Ali, Secretary, MoA. The list of Participants is attached (Annexure I).

The Chairman welcomed the participants of the meeting and made introductory remark about the project. Then he invited Mr. M. Anwar Iqbal, National Project Director (NPD) to make presentation on the project performance.

The NPD thanked UNDP and FAO for their assistance and cooperation. He talked about the previous TPRs and Mid-Term Review (MTR) and Mission findings, which rated the project to be one of the most successful ones. He stated that more than 95 per cent physical progress and more than 89 per cent technical progress have been made by the project. Regarding training/HRD, over 85 per cent of the target has been achieved. In case of Expatriate Consultancy, about 95 per cent has already been utilized.

The Meeting was informed that (i) So far 300 Thana information maps have been digitized (ii) Thematic maps on 1998 flood showing areas inundated, crops loss estimates etc. have been produced (iii) Maps of economically depressed areas of Bangladesh, integrating biophysical, socio-economic information for vulnerable group feeding (VGF) programme expansion have been produced (iv) As a part of technology transfer, FSR extrapolation mapping of 18 technologies have been completed (v) As a part of IIRD activities more than 600 high level policy planners, scientists have been sensitized through five orientation workshops and 210 mid-level scientists, extension workers and NGO personnel have been trained through 15 courses (vi) Further refinement of drought/salinity affected area delineation is currently under process (vii) Multi-Criteria Decision Analysis (MCDA) for Tangail as pilot district is under process (viii) Arrangement for participation of the project in the Asia-Pacific regional Network on Land Resource Inventory is under way (ix) Bilateral discussion was held on BARC-CIMMYT Country Almanac (x) Data updating up to 1996 already done and rest to be completed soon and (xi) Homepage of the project has been launched on the internet. It was mentioned that since 1996 two regular and one special audits had been completed and currently one is underway.

The status of activities undertaken as per recommendation of the MTR were mentioned as follows :

(i) Work on land suitability assessment, collection of socio-economic and other missing data have been completed (ii) Capacity building of core-staff and DAE staff is being done (iii) AEZ/GIS network expansion is being done as needed (iv) No information is released before data refinement /validation (v) GIS Brochure has been published and distributed (vi) As regards publication of GIS Manual, which was the job of the long-term FAO expatriate consultant, FAO is to ask the consultant to do the needful (vii) Effective collaboration has been established among all related organizations within the country and outside (IRRI, CIMMYT, ICIMOD, IIASA, IFDC, University of Hawaii etc.).

In reply to a query of the Chairman about the difference between the work done by BARC-GIS and those of other organizations the Executive Chairman, BARC clarified the activities of BARC-GIS and the works of LGED and SRDI.

Regarding the Economically Depressed Area Mapping the Chairman suggested that agricultural production possibilities with necessary interventions in vulnerable areas needs to be studied. He also asked to develop maps for present and potential land use/major cropping patterns. He asked to discuss and finalize it with DAE and NARS institutes. Problem in socio-economic data acquisition from BBS was discussed. The Chairman requested the officials of MoA to look into the matter. He also advised to look for an expert in this field from the neighbouring country. The Chairman then focused on the rate of loss of agricultural land and asked to find out ways to address the problem.

Regarding the National/Local Almanac on CD ROM the UNDP representative said that they need justification with concrete proposal. FAO may provide the write-up and include under TSS-II, in case of expatriate consultancy.

PROBLEMS/MAJOR ISSUES AND DECISIONS

Agenda-wise discussions were held and decisions taken :

Project Extension/Sustainability: It was suggested that for data updating, O & M etc. after project expiry UNDP may think of extension as actual project work started on 27 April, 1998 with the functioning and handing over of GIS equipment. So counting from that date upto 5 years project may be extended up to 26 April, 2003.

The Chairman urged UNDP to consider the mentioned period. In reply, the UNDP representative said that it would be very difficult to include the Project into the next CCT as their priority is now on poverty alleviation and they are already over-committed. The Chairman asked the NPD about the yearly fund requirement that would be needed after the expiry of the

project. The NPD replied that approximately Tk.40.00 lakhs should be enough for maintenance, fuel/oil, telephone, Internet services etc. besides human resource development activities, data collection/procurement and field validation. Regarding the development of the country Almanac with CIMMYT, UNDP representative said, if FAO can come up with some concrete proposal justifying the Almanac issue, funding etc. then UNDP may consider it, but that again should be by June 2001.

Decision: Since GIS Project is providing useful output for national agricultural development planning, UNDP may give revised thought on the extension of the Project period as discussed. In case of non-availability of donor fund, BARC will prepare a PCP for GOB funding after expiry of the present Project period. FAO will initiate a proposal on joint BARC-CIMMYT Almanac issue and submit it to UNDP/MOA for consideration.

Cost recovery: UNDP representative said that as a national database it should be free for the users. But, for specialized service, there may be some charge. The NPD said, GIS project gives data without any charge but not everybody does so. The Chairman asked BARC to frame a cost recovery mechanism. At this the Executive Chairman, BARC said that the proposal is already there and it will be placed in the BARC Governing Body for approval.

Decision: BARC to frame revised proposal on 'Cost recovery' mechanism and get it approved by the Governing body of BARC.

Payment of VAT for local supply of computers. Fund provision for the payment of outstanding bill of Tk. 1.31 lakh to a local computer supplier has been made in the revised TAPP, but it could not be released due to technical problem. The Chairman asked the concerned officials of the MoA and BARC to take up the matter with NBR and find out ways to resolve the issue.

Decision: MOA/BARC to explore ways with NBR and settle the issue.

NTCC approval of the five new slots of study tour/training/workshop: This is lying pending for long. The Chairman asked the concerned officials of MoA to look into the matter and get it approved by NTCC.

Decision: MOA to take necessary step to get it approved by NTCC for early implementation of the activity by BARC/UNDP.

Payment of Remuneration to the NPD and core staff: This has been approved in the revised TAPP, but payment could not be made as fund has not been released as yet. The Chairman inquired about the amount of money involved for the payment. The NPD informed that only

About Taka 12 lakh would be required for the 5-year period. The Chairman asked the officials of MoA to take necessary steps to release the fund.

Decision: MOA to arrange release of necessary fund at an early date.

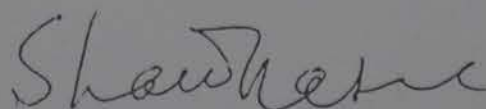
Approval to convert Local Agroclimatology specialist position for 6 months to Local System Analyst/Programmer: Approval of the MoA/UNDP to convert the Local Agroclimatology position for 6 months (not utilized) to Local System Analyst/Programmer (for the period that can be covered within that amount) was sought. It was stated that this is more important at this stage of systems application development. Moreover, agroclimatological analysis has already been done with the help of the core BARC staff and short-term Expatriate Agro-climatology Specialist. The matter was agreed upon by MoA and UNDP.

Decision: Fund allocated against Local Agroclimatologist in the TAPP/ProDoc will be utilized for hiring/extension of the services of the Local System Analyst/Programmer by BARC/GIS.

Present system of FAO's consultant management needs change: NDP informed that FAO's Consultants are not accountable to the Project authority. He suggested for inclusion of a clause in the TOR/Agreement between BARC-FAO to make the Expatriate Consultants accountable to the project authority. The Chairman asked the FAO representative to do the needful in this regard.

Decision: FAO to take necessary steps for revision of the project document with a view to make the Expatriate Consultants accountable to the Project authority.

The meeting ended with a vote of thanks to and from the Chair.



(Dr. A.M.M. Shawkat Ali)
Secretary
Ministry of Agriculture.

Copy for information and necessary action to :

1. Dr. Z. Karim, Executive Chairman, BARC
2. Dr. M. S. Islam, Member-Director (Soils), BARC
3. Mr. A. Waheed Khan, Joint Chief, MoA
4. Ms. Shireen Kamal Sayeed, ARR, UNDP
5. Dr. M. Ali Ashraf, Programme Officer, UNDP

17/4/2007

6. Ms. Khodeza Begum, Director, IMED
7. Mr. Mahbub Ahmed, Director, Computer Centre, BARC
8. Dr. Subash Das Gupta, National Programme Officer, FAO, Dhaka.
9. Mr. M. Anwar Iqbal, NPD, GIS Project, BARC
10. Mr. Mohd. Seraj Khan, Senior Assistant Secretary, ERD
11. P. S. to Secretary, Ministry of Agriculture.

List of Participants

The following persons were present in the meeting:

1. Dr. Z. Karim, Executive Chairman, BARC
2. Dr. M. S. Islam, Member-Director (Soils), BARC
3. Mr. A. Waheed Khan, Joint Chief, MoA
4. Ms. Shireen Kamal Sayeed, ARR, UNDP
5. Dr. M. Ali Ashraf Programme Officer, UNDP
6. Ms. Khodeza Begum, Director, IMED
7. Mr. Mahbub Ahmed, Director, Computer Centre, BARC
8. Dr. Subash Das Gupta, National Programme Officer, FAO, Dhaka.
9. Mr. M. Anwar Iqbal, NPD, GIS Project, BARC
10. Mr. Mohd. Seraj Khan, Senior Assistant Secretary, ERD
11. Mr. Md. Ashfaqul Islam, Assistant Secretary, MoA

Budget Revision

Country: The People's Republic of Bangladesh
 Project Number: BGD/95/006/N/01/99
 Project Title: Utilisation of Agro-Ecological Zones Database and Installation of Geographic Information System for Agricultural Development
 Start Year: 1995
 End Year: 2001
 Executing Agency: NEX - National Execution
 Govt. Implementing Agency: Bangladesh Agricultural Research Council (BARC), Ministry of Agriculture
 UN Implementing Agency: Food and Agricultural Organisation (FAO)

The budget of the above project is hereby processed in order to (a) record actual expenditure in 2000 as reported in the Combined Delivery Report duly certified by the National Project Director, and (b) to provide an updated estimate of the projected expenditure level in 2001 till the completion of project activities in December 2001 *inter-alia* completion of reporting and other closing activities.


The change in the UNDP input is as follows:

Source of Funds	Previous UNDP Input		Revised UNDP Input		Increase/ (Decrease) US\$
	Code	Amount US\$	Code	Amount US\$	
TRAC	"M"	2,135,905	"N"	2,062,032	(73,873)
AOS		148,109		143,296	(4,813)

Ref: NPD's letter dated 31.5. 2001

Agreed on behalf of Executing Agency

Date


 Approved on behalf of UNDP
 Jørgen Lisner
 UNDP Representative

6 JUNE 2001
 Date

Main Source of Funds: 01 - UNDP-IPF / TRAC - (Trac 1.1.1 & 1
 Executing Agency: NEX - National Execution

SBLN	Donor	Funding	Total	1995 - 1997	1998	1999	2000	2001
999.	NET CONTRIBUTION							
	Net Contrib.		2,062,032	802,324	543,736	404,657	167,613	143,702
	AOS		143,296	70,419	37,604	25,039	4,620	5,614
	Total		2,205,328	872,743	581,340	429,696	172,233	149,316

Budget

Main Source of Funds: 01 - UNDP-IPF / TRAC - (Trac 1.1.1 & 1
 Executing Agency: NEX - National Execution

SBLN	Description	Implementing	Funding	Total	1996 - 1997	1998	1999	2000	2001
033.99	Line Total			26,800	7,253	2,581	3,655	1,932	1,379
	Net Amount								
	AOS			526.2	232	56	236	2	
059.	MISCELLANEOUS TOTAL			23,384	7,253	3,239	4,194	2,319	6,379
	Net Amount								
	AOS			526.2	232	56	236	2	
060.	MISCELLANEOUS								
065.	Exchange Differential								
085.01	Exchange Differential	NEX							
035.99	Line Total								
089.	MISCELLANEOUS TOTAL								
	Net Amount								
099.	BUDGET TOTAL			2,062,032	802,324	543,736	404,657	167,613	143,702
	Net Amount								
	W/M			638.2	90.5	221.5	150.5	102.7	73.0
	AOS			143,296	70,419	37,604	25,039	4,620	5,614



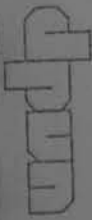
Main Source of Funds: 01 - UNDP-IPF / TRAC - (Trac 1.1.1 & 1
Executing Agency: NEX - National Execution

SBLN	Description	Implementing	Funding	Total	1995-1997	1998	1999	2000	2001
040.	EQUIPMENT								
045.	Equipment								
045.01	Equipment (Expendable)	NEX		62,225	42,270	3,702	3,120	2,433	10,700
045.02	Operation & Maintenance	NEX		42,207	2,455	10,156	6,240	7,856	15,500
045.03	Equipment	FAO		-2,077	2,669	-208	-482	-4,056	
				-208	267	-21	-48	-406	
045.99	Line Total			102,355	47,394	13,650	8,878	6,233	26,200
				-208	267	-21	-48	-406	
046.	Intl Procurement of eqpt > \$70,000	FAO							
046.01	International Procurement			401,183	401,183				
				40,118	40,118				
046.99	Line Total			401,183	401,183				
				40,118	40,118				
047.	Intl Procurement of eqpt <= \$70,000	FAO							
047.01	International Procurement			122,035	97,137	24,898			
				12,204	9,714	2,490			
047.99	Line Total			122,035	97,137	24,898			
				12,204	9,714	2,490			
049.	EQUIPMENT TOTAL			625,573	545,714	38,548	8,878	6,233	26,200
				52,114	50,099	2,469	-48	-406	
050.	MISCELLANEOUS								
052.	Reporting Costs	NEX		3,584		658	539	387	5,000
052.01	Reports			6,584		658	539	387	5,000
052.99	Line Total								
053.	Sundries	NEX		9,606	4,932	1,798	347	1,350	1,179
053.01	Executing Agent (GOVT)			1,933		224	949	560	200
053.02	UNDP Admin fee (@ 5% for BL21.00)	NEX		5,261	2,321	559	2,359	22	
053.03	UN Implementing Agent (FAO)	FAO		526	232	56	236		2

Budget

Main Source of Funds: 01 - UNDP-IPF / TRAC - (Trac 1.1.1 & 1
Executing Agency: NEX - National Execution

SBLN	Description	Implementing	Funding	Total	1995-1997	1998	1999	2000	2001
021.	Contract A	NEX							
021.01	Local Digitizing Contracts			Net Amount - 50,641		22,218	8,831	19,592	
021.99	Line Total			50,641		22,218	8,831	19,592	
029.	SUBCONTRACTS TOTAL			50,641		22,218	8,831	19,592	
030.	TRAINING								
031.	Fellowships	FAO							
031.01	Higher Studies in Land Res.			Net Amount 124,606	38,260	60,059	27,712	-1,425	
				W/M 32.0		18.0	14.0		
				AOS 12,460	3,826	6,006	2,771	-143	
031.02	Training in GIS	FAO		Net Amount 48,159		17,086	31,073		
				W/M 24.0		10.0	9.0	5.0	
				AOS 4,816		1,709	3,107		
031.99	Line Total			Net Amount 172,765	38,260	77,145	58,785	-1,425	
				W/M 56.0		28.0	23.0	5.0	
				AOS 17,276	3,826	7,715	5,878	-143	
032.	Other Training	FAO							
032.01	Study Tours			Net Amount 37,082	21,915	-796	963		15,000
				AOS 3,708	2,192	-80	96		1,500
032.99	Line Total			Net Amount 37,082	21,915	-796	963		15,000
				AOS 3,708	2,192	-80	96		1,500
033.	In-Service Training	NEX							
033.01	In-Service Training			Net Amount 73,546	3,542	17,558	15,874	15,093	21,479
033.99	Line Total			73,546	3,542	17,558	15,874	15,093	21,479
039.	TRAINING TOTAL			Net Amount 283,393	63,717	93,907	75,622	13,668	36,479
				W/M 56.0		28.0	23.0	5.0	
				AOS 20,984	6,018	7,635	5,974	-143	1,500



Budget

Main Source of Funds: 01 - UNDP-IPF/TRAC - (Trac 1.1.1 & 1)
Executing Agency: NEX - National Execution

SBLN	Description	Implementing	Funding	Total	1995-1997	1998	1999	2000	2001
016.	Mission Costs								
016.01	Backstopping (FAO)	FAO		15,672	5,017	655	2,878		7,122
				2.8	0.8	1.0	1.0		
				1,568	502	66	288		712
016.02	Evaluation	NEX		30,111			30,111		
016.03	Evaluation (FAO)	FAO		12,000			8,228		3,772
				1.0			1.0		
				1,200			823		377
016.99	Line Total			57,783	5,017	655	41,217		10,894
				3.8	0.8	1.0	2.0		
				2,768	502	66	1,111		1,089
017.	National Consultants								
017.01	Land Resources Specialist	NEX		64,774	8,606	25,792	21,725	8,651	
				36.0	7.0	12.0	12.0	5.0	
017.02	Socio-economic Specialist	NEX		68,779	2,019	16,584	21,725	21,913	6,538
				44.0	7.0	9.0	12.0	12.0	4.0
017.03	Systems Analyst/Programmer	NEX		56,318	5,234	14,552	14,051	17,876	4,605
				41.7	7.0	12.0	12.0	6.7	4.0
017.04	Agro-climatology Specialist	NEX		21,984	10,243	11,741			
				12.0	7.0	5.0			
017.05	Farming System Specialist	NEX		44,232	10,243	24,891	9,098		
				19.0	7.0	12.0			
				256,087	36,345	93,560	66,599	48,440	11,143
017.99	Line Total			152.7	35.0	50.0	36.0	23.7	8.0
019.	PROJECT PERSONNEL TOTAL			1,079,041	185,640	385,824	307,132	125,801	74,644
				582.2	90.5	193.5	127.5	97.7	73.0
				69,672	14,070	27,444	18,877	5,167	4,114
020.	CONTRACTS								

Main Source of Funds: 01 - UNDP-IPE / TRAC - (Trac 1.1.1 & 1
Executing Agency: NEX - National Execution

SBLN	Description	Implementing	Funding	Total	1995 - 1997	1998	1999	2000	2001
010.	PERSONNEL								
011.	International Consultants	FAO							
011.01	GIS/Computer Info Systems			408,238	110,221	136,713	109,630	51,674	
				36.0	10.0	12.0	12.0	2.0	
				40,823	11,022	13,671	10,963	5,167	
011.51	Agro-climatology	FAO		96,000		58,177	29,829		7,994
				6.0		3.5	2.5		
				9,600		5,818	2,983		799
011.52	GIS/Systems Specialist	FAO		145,193	21,833	78,360	22,740		22,260
				9.7	1.7	5.0	3.0		
				14,519	2,183	7,836	2,274		2,226
011.97	Short Term Consultants	FAO		15,457			15,457		
				1,546			1,546		
011.99	Line Total			664,888	132,054	273,250	177,656	51,674	30,254
				51.7	11.7	20.5	17.5	2.0	
				66,488	13,205	27,325	17,766	5,167	3,025
013.	Administrative Support	NEX							
013.01	Administrative Asstt			21,986	3,136	4,185	4,782	5,423	4,460
				57.0	9.0	12.0	12.0	12.0	12.0
013.02	Secretary (2)	NEX		32,551	3,431	6,158	7,050	8,470	7,442
				112.0	16.0	24.0	24.0	24.0	24.0
013.03	Drivers (3)	NEX		26,330	1,364	5,179	6,323	8,078	5,386
				155.0	18.0	36.0	36.0	36.0	29.0
013.99	Line Total			80,867	7,931	15,522	18,155	21,971	17,288
				324.0	43.0	72.0	72.0	72.0	65.0
015.	Monitoring and Evaluation	NEX							
015.01	Executing Agent (GOVT)			15,257	668	2,303	3,505	3,716	5,065
				50.0		50.0			
015.02	Implementing Agent (FAO)	FAO		4,159	3,625	534			
				416	363	53			
015.99	Line Total			19,416	4,293	2,837	3,505	3,716	5,065
				50.0		50.0			
				416	363	53			



GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

MINISTRY OF AGRICULTURE

Revised TAPP

**Utilization of Agro-Ecological Zones (AEZ) Data Base and
Installation of GIS for Agricultural Development (Revised)**

(UNDP/GOB funded project)

1993-2001

*Acc. No. 50799(3)
16.5.99*



Bangladesh Agricultural Research Council

New Airport Road, Farmgate, Dhaka 1215

March 1999



গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
কৃষি মন্ত্রণালয়
পরিকল্পনা শাখা-৪

নং- কৃষি: পরি-৪/বার্ক-টিএ/এইজেড/৯৭-৯৮/১২০

তারিখ: ১০/৮/৯৯ইং

প্রেরক : মোঃ ফিরোজ উদ্দিন
সহকারী প্রধান, কৃষি মন্ত্রণালয়, ঢাকা।

প্রাপক : প্রধান হিসাবরক্ষণ কর্মকর্তা
কৃষি মন্ত্রণালয়, সেগুনবাগিচা, ঢাকা।

বিষয় : 'ইউটিলাইজেশন অব এগো-ইকোলজিক্যাল স্কোনস (এইজেড) ডাটাবেইজ এন্ড ইনস্টলেশন অব জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট (সংশোধিত)' শীর্ষক কারিগরী সহায়তা প্রকল্পের প্রশাসনিক অনুমোদন।

মহোদয়,

নির্দেশক্রমে জানানো যাইতেছে যে, 'ইউটিলাইজেশন অব এগো-ইকোলজিক্যাল স্কোনস (এইজেড) ডাটাবেইজ এন্ড ইনস্টলেশন অব জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট (সংশোধিত)' শীর্ষক কারিগরী সহায়তা প্রকল্পটি মোট ১০১৭.১০ লক্ষ টাকা (দশ কোটি সত্তের লক্ষ দশ হাজার টাকা, ছিওবি ১০৬.৯০ ও পিএ ৯১০.২০ লক্ষ টাকা) প্রাকলিত ব্যয়ে আনুমানী/৯৪ ইংতে মুন ২০০১ইং সময়কালে বাস্তবায়নের শর্তে যথাগণ কর্তৃক ০৩/৫/৯৯ইং তারিখে অনুমোদিত হইয়াছে।

২। প্রকল্পটি ছিওবি (১০৬.৯০ লক্ষ টাকা) ও ইউএনডিপি সহায়তায় (৯১০.২০ লক্ষ টাকা) বাংলাদেশ কৃষি গবেষণা কাউন্সিল কর্তৃক বাস্তবায়িত হইবে।

৩। প্রকল্পটি বাস্তবায়নের জন্য সরকারের প্রশাসনিক অনুমোদন জারী করা হইল।

সংযুক্তি : ১ প্রহু পিপি।

নির্বাহী চেয়ারম্যান এর পত্র বি এ অর সি, ঢাকা	ডায়েরী নং- তারিখ:
স: প: (প: ও অ:)	পরি: (এস এস)
স: প: (এ ই অর এস)	পরি: (অর)
স: প: (শস্য)	পরি: (টি টি এম ইউ)
স: প: (পরি: ও যুগ্ম:)	পরি: (প্রশিক্ষণ)
স: প: (বৃত্তি:)	পরি: (বৃত্তি:)
স: প: (কৃষি প্রকৌশলী)	পরি: (কৃষি:)
স: প: (মৎস্য)	পরি: (মৎস্য) / AIC
স: প: (বন)	অন্যান্য
স: প: (পশুপালন)	পরি: (পশুপালন)

নং- কৃষি: পরি-৪/বার্ক-টিএ/এইজেড/৯৭-৯৮/১২০

নিম্নের কৃষিসহ অনুলিপি সদয় অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য প্রেরণ করা যাইতেছে:

- ১। সচিব, অর্থ বিভাগ, অর্থ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ২। সচিব, সংস্থাপন মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৩। সচিব (বৃত্তি), পরিকল্পনা কমিশন, পেরে বাংলা নগর, ঢাকা।
- ৪। সচিব, আইএমইডি, পরিকল্পনা মন্ত্রণালয়, পেরে বাংলা নগর, ঢাকা।
- ৫। সচিব, আর্থনৈতিক সম্পর্ক বিভাগ, পেরে বাংলা নগর, ঢাকা।
- ৬। নির্বাহী চেয়ারম্যান, বাংলাদেশ কৃষি গবেষণা কাউন্সিল, ফার্মগেট, ঢাকা।
(দৃ: আ: - ড: আনোয়ার ইকবাল, প্রকল্প পরিচালক)
- ৭। যুগ্ম-প্রধান (কম্পিউটার), পরিকল্পনা কমিশন, পেরে বাংলা নগর, ঢাকা।
- ৮। যুগ্ম-সচিব (গবেষণা), কৃষি মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৯। চেয়ারম্যান, আর্থীক রায় বোর্ড, সেগুন বাগিচা, ঢাকা।

অনুলিপি : - সচিব মহোদয়ের একান্ত সচিব, কৃষি মন্ত্রণালয়, ঢাকা।

(মোঃ ফিরোজ উদ্দিন)
সহকারী প্রধান

০৫ মে, ১৯৯৯

তারিখ : ২২ বৈশাখ, ১৪০৬

নং-পক/কৃষি/ফসল-৬০৫/টিএপিপি/৯১/

বিষয় : 'ইউটিলাইজেশন অব এগো-ইকোলজিক্যাল জোনস (এইজেড) ডাটাবেইজ এন্ড ইনটেলেশন অব জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট (সংশোধিত)' শীর্ষক কারিগরী সহায়তা প্রকল্পের অনুমোদন প্রসঙ্গে।

নিম্নস্বাক্ষরকারী আদিষ্ট হইয়া জানাইতেছে যে, বিয়োক্ত সংশোধিত টিএপিপি'র বাস্তবায়নকাল আর কোন অবস্থাতেই বৃদ্ধি করা যাইবে না এই শর্ত সাপেক্ষে গণ্যযোগ্য কর্তৃপক্ষ কর্তৃক ০৩-০৫-৯৯ তারিখে প্রকল্পটি মোট ১০১৭.১০ লক্ষ টাকার প্রাক্কলিত ব্যয়ে (প্রকল্প সাহায্য ৯১০.২০ লক্ষ টাকা ও স্থানীয় মুদ্রা ১০৬.৯০ লক্ষ টাকা) ডিসেম্বর, ১৯৯৮ হইতে জুন, ২০০১ মেয়াদে বাস্তবায়নের জন্য অনুমোদিত হইয়াছে।

২। প্রকল্পের অনুমোদিত ব্যয় বিভাজন নিম্নরূপ :

(লক্ষ টাকায়)

নং	কম্পোনেন্ট	প্রকল্প ব্যয়			
		পরিমাণ	প্রকল্প সাহায্য	জিওবি	মোট
১	২	৩	৪	৫	৬
১)	বিদেশী পরামর্শক	১৪ জন (৫৩ জনমাস)	২৯৩.৩২	-	২৯৩.৩২
২)	স্থানীয় পরামর্শক	১৫ জন (১৫৬ জনমাস)	১১৯.০৮	-	১১৯.০৮
৩)	সহায়ক জনবল	১১৪ জন (৪৪৪ জনমাস)	৩৫.৩০	১৩.৩২	৪৮.৬২
৪)	যন্ত্রপাতি	পৃঃ-২৯	২০৩.০০	-	২০৩.০০
৫)	প্রশিক্ষণ (বিদেশ)	পৃঃ-৩০	৮৪.৮৮	-	৮৪.৮৮
৬)	প্রশিক্ষণ		৩৪.০০	-	৩৪.০০
৭)	শিক্ষা সফর		১৫.২৮	-	১৫.২৮
৮)	বিবিধ/অন্যান্য	পৃঃ-৩১	১২৫.৪৬	৯.৩১	১৩৪.৭৭
৯)	সিডিডাট			৮৪.২৭	৮৪.২৭
	মোট :		৯১০.২০	১০৬.৯০	১০১৭.১০

৩। এতদসঙ্গে অনুমোদিত টিএপিপি'র এক প্রস্থ প্রয়োজনীয় কার্যক্রম গ্রহণের জন্য নির্দেশক্রমে প্রেরিত হইল।

(মোঃ উবায়দুল হক)

সহকারী প্রধান

ফোন : ৯১১৭৫৪৯

সচিব,
কৃষি মন্ত্রণালয়,
বাংলাদেশ সচিবালয়, ঢাকা।

নং-পক/কৃষি/ফসল-৬০৫/টিএপিপি/৯১/৯৯ ৩

সদয় অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য অনুমোদিত টিএপিপি'র এক প্রস্থ প্রকল্প ছক

- ১। সচিব, সংস্থাপন মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ২। সচিব, অর্থ বিভাগ, অর্থ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৩। সচিব, অর্থনৈতিক সম্পর্ক বিভাগ, শেরে বাংলা নগর, ঢাকা।
- ৪। সচিব, আইএমইডি, শেরে বাংলা নগর, ঢাকা।
- ৫। সচিব, বিজ্ঞান ও প্রযুক্তি মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৬। চেয়ারম্যান, জাতীয় রাজস্ব বোর্ড, সেগুনবাগিচা, ঢাকা।
- ৭। বিভাগীয় প্রধান, কৃষি, পানি সম্পদ ও পল্লী প্রতিষ্ঠান বিভাগ, পরিচালনা কমিশন, ঢাকা।
- ৮। বিভাগীয় প্রধান, কার্যক্রম বিভাগ, পরিচালনা কমিশন, ঢাকা।
- ৯। নির্বাহী সভাপতি, বাংলাদেশ কৃষি গবেষণা কাউন্সিল (বার্ক), ফার্মগেইট, ঢাকা।

(মোঃ উবায়দুল হক)

সহকারী প্রধান

সদয় অবগতির জন্য অনুলিপি :

- ১। সদস্য (কৃষি) মহোদয়ের একান্ত সচিব, পরিচালনা কমিশন, ঢাকা।
- ২। মুদ্রা-প্রধান (ফসল) মহোদয়ের ব্যক্তিগত কর্মকর্তা, পরিচালনা কমিশন, ঢাকা।

নির্দেশিত চেয়ারম্যান এর দপ্তর বা এ আর সি, ঢাকা	ডায়েরী নং- তারিখ:
সং পঃ (প্রঃ ও অঃ)	পরিঃ (এস এস)
সং পঃ (ক্রীড়া ও ক্রীড়া)	পরিঃ (অর্থ)
সং পঃ (প্রশিক্ষণ), ১৪০৬	পরিঃ (টি টি এম ইউ)
সং পঃ (পরিঃ ও মূল্যঃ)	পরিঃ (প্রশিক্ষণ)
সং পঃ (কৃষি প্রকৌশলী)	পরিঃ (পরিঃ)
সং পঃ (কৃষি প্রকৌশলী)	পরিঃ (কৃষিঃ)
সং পঃ (মৎস্য)	পরিঃ (মাইক)/AIC
সং পঃ (বন)	অন্যান্য
সং পঃ (পত্রসম্পদ)	





Ref. ARC/NPD/01/GIS/95/113(4)

Date : 05.05.98

To
Ms. Shireen Kamal Sayeed
Programme Manager
UNDP, House No. 60, Road No. 11A
Dhamondi, Dhaka.

Sub : BGD/95/006 : GIS at BARC - Revision of NPPP and staff Salary.

The matter of refixing salary of the project staff was discussed in a joint meeting of BARC and UNDP on 05-05-98. The meeting held at UNDP was attended by Mr. Masud Ahmed, Head, Personnel, UNDP, Dr. Ali Ashraf, Programme Officer, UNDP and the undersigned. The question of salary revision arised as there is anomaly in scale in different projects, drivers salary are low and that there is no clear cut guidelines in the NEX manual or any other memo. from UNDP in this respect. Since the GIS project is producing the revised TAPP for govt. approval, revision of salary structure is necessary for budgeting purposes.

After discussion, the attached decisions were made and are furnished in Annex-1, Annex-2 and Annex-3. It is pertinent to mention here that, the revised salary is in line with ^{other} NEX ppojects under the Ministry of Agriculture.

This for your information and necessary action.

(M. Anwar Iqbal)
National Project Director

CC to :

1. Mr. Masud Ahmed, Head, Personnel, UNDP
2. Dr. Ali Ashraf, Programme Officer, UNDP
3. Member Director (A&F)/Director (Finance), BARC
4. PS to the Executive Chairman, BARC

10/5

10/5
19/5/98

ok

UNDP

10/5
19/5/98

BGD/95/006:GIS at BARC
EXISTING MONTHLY AND RECOMMENDED SALARY OF ADMINISTRATIVE SUPPORT PERSONNEL

Sl. #	Position	Existing UNDP budget allocation (as per 'F' code)	Existing consolidated TAPP Salary (Tk)	Fund release by UNDP in salary B/L (Tk)	Recommended salary in revised TAPP (Tk)	Remarks/Conditions
		US\$	Taka			
1	Administrative Assistant	466.66	21,541.03	15,000.00 (including O.T)	14,000.00 + Over Time	a) Max. 40 hrs. O.T./month will be applicable for all b) Progressive increment per year, subject to satisfactory performance and on completion of the present contract period by staff (Tk. 1000/- for Admin. Asstt. Tk. 800/- for Secretary and Tk. 600/- per annum for drivers).
2	Secretary (each) Total 2 nos.	391.66	18,079.03	12,000.00 (including O.T)	11,000.00 + Over Time	
3	Driver (each) Total 3 nos.	165.77	7,651.94	6,000.00 (including O.T)	7,000.00 + Over Time	

Annex-2

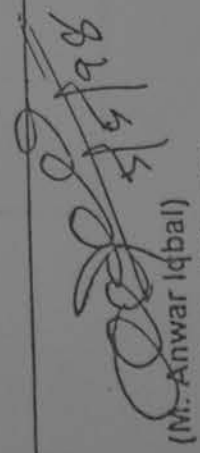
Salary of NPPP :

Salary revision of Mr. Hasan Ali, System Specialist/Programmer of the project from the present salary of Tk. 53,000.00 to Tk. 62,000.00 per month will be effective as per UNDP's Memo. PER/262/5/2 dated 10 Sept. 1997, subject to the satisfactory performance, completion of required length of service/experience (10 yrs+) and on expiry of the present contract period. Letter to UNDP will follow in due course.

Annex-3

Procedures for Calculation of Overtime (OT) :

Step -1 : Monthly Salary /21.75 = Daily Salary	Example : (Say)	Tk. 5000 (monthly Salary)/ 21.75 = Tk. 229.885
Step -2 : Daily Salary / 8 = Hourly Rate	Note :	Tk. 229.885 / 8 = Tk. 28.74 Per hour
		Maximum 40 hours OT/Month


(M. Anwar Iqbal)
National Project Director


(Mashud Ahmed)
Chief
Personnel, UNDP

PER/262/5/2

10 September 1997

Dear Mr. Islam,

Remuneration of NPP/C Consultants

Further to our letter dated 9 December 1996 on the above subject, I am pleased to forward a copy of revised remuneration scale applicable to National Professional Project Personnel and National Consultants, effective 1 September 1997, for your information.

Yours sincerely

David E. Lockwood
Resident Representative

Mr. Baharul Islam
Senior Asst. Secretary
Economic Relations Division
Govt. of People's Republic of Bangladesh
Sher-e-Bangla Nagar
Dhaka-1207

cc: All UN Mission Chiefs in Bangladesh
cc: All Project Managers, CTAs of UNDP-funded
technical assistance projects in Bangladesh.

REC	14 SEP 1997	
ROUTED	A-1	
P-1	1	1
P-2	1	1
P-3	1	1
P-4	1	1
P-5	1	1
FILED		
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Handwritten notes: 16/9/97, 15/9, 16/9

TCTTI, DHAKA.	
Received 16/9/97	
Row	1-55
Date	16/9/97
By	16/9

cc: Mr. H. Konuma
cc: All CTAs

I) CONSULTANTS (with contracts of 3 months or less)

Level of consultants	Range of pre-tax remuneration (Tk.)	
	1	2
A) Junior	49,000	59,000
B) Middle	69,000	83,000
C) Senior	98,000	118,000

II) ☒ EXPERTS (with contracts of more than 3 months)

Level of NPPP	Range of pre-tax remuneration (Tk.)	
	1	2
A) Junior	44,000	53,000
B) Middle	62,000	75,000
C) Senior	88,000	106,000

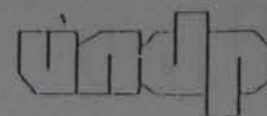
Minimum requirements:

- A (1) Masters Degree and 3+ years experience.
 A (2) Masters Degree and 3+ years experience.
 B (1) Masters degree and 10+ yrs. experience in related field.
 B (2) Masters degree and 15+ yrs. experience in related field.
 C (1) Masters degree and 16+ yrs. experience in related field.
 C (2) Masters Degree and 21+ years of experience in related field
 (C2 is awardable to only those who will have managerial responsibility and financial accountability)

*Ph.D. will be considered equivalent to 3 yrs. of work experience in all cases.



UNITED NATIONS
DEVELOPMENT PROGRAMME



Project Revision

Country: The People's Republic of Bangladesh
Project Number: BGD/95/006/H/01/99
Project Title: Utilization of Agro-Ecological Zones
Database and Installation of Geographic
Information System for Agricultural
Development

The Budget revision is hereby approved in order to reflect best estimated annualised expenditures in 1998 and future years. The revision reflects interline adjustments from BL17 to BL20 and BL33 as requested by the Executing Agency (NPD). The revision also incorporates transfer of US\$ 12,000 from BL16.01 under 2000 allocation to BL 16.03 for making budgetary provision to include costs to be incurred by UN Implementing Agency - FAO's participation in the Joint Mid-Term Evaluation Mission to be fielded in the first quarter of 1999.

The change in the UNDP input is as follows:

Source of Funds	Previous UNDP Input		Revised UNDP Input		Increase/ (Decrease) US\$
	Code	Amount US\$	Code	Amount US\$	
TRAC	G	2,075,450	H	2,075,450	0
AOS		146,978		146,978	0

Approved on behalf of UNDP

ANDRE KLAF

Deputy Resident Representative

22/11/98
Date



UNITED NATIONS DEVELOPMENT PROGRAMME



Project Revision

Country:

Project Number:

Project Title:

The People's Republic of Bangladesh
BGD/95/006/B/01/99
Utilization of Agro-Ecological Zones
Data Base and Installation of
Geographic Information System for
Agricultural Development

The enclosed budget revision is prepared in order to rephase the project funds into future years as a result of delays in the project's inception and to reflect correct AOS budget. The revision also corrects an inadvertent error in personnel component sub-total (BL19).

The change in the UNDP input is as follows:

Source of Funds	Previous UNDP Input		Revised UNDP Input		Increase/ (Decrease) ✓ US\$
	Code	Amount US\$	Code	Amount US\$	
(IPF)	A	2,065,180	B	2,042,680	(22,500)
(AOS)	A	123,850	D	130,910	7,060

the project budget
(International
Project fund)

(FAC's cost)

Approved on behalf of UNDP

MICHAEL CONSTANT
DEPUTY RESIDENT REPRESENTATIVE

16-11-99
Date

6 August 1998

BGD/95/006/PD/TPR

Dear Mr. Secretary,

**BGD/95/006 – Utilization of Agro-Ecological Zones Data Base
and Installation of Geographic Information System for
Agricultural Development**

We are pleased to enclose a copy of the Summary Report prepared by our office on the Tripartite Project Review (TPR) meeting for the subject project held on 29 July 1998 with Mr. Abdul Halim, Additional Secretary in the chair.

We wish to bring to the Ministry's particular attention the need for urgent actions with respect to the decisions adopted in the meeting as mentioned under Section 4 (i), page 4 of the Summary Report. By copy of this letter, we are drawing the project management's attention to the TPR decisions to take necessary actions immediately for revision of the TAPP, recruitment of expert (agro-climatologist), and implementation of the study tour programme within the year as agreed in the meeting.

With kind regards,

Yours sincerely,



Shireen Kamal Sayeed
Assistant Resident Representative
for Resident Representative

Dr. A.M.M. Shawkat Ali
Secretary
Ministry of Agriculture
Government of the People's Republic of Bangladesh
Bangladesh Secretariat
Dhaka

AA
TPR/ARR file.

cc: Mr. K.M. Nazmul Alam Siddiqui, Joint Secretary (UN), Economic Relations Division, Ministry of Finance, Government of the People's Republic of Bangladesh, Sher-e-Bangla Nagar, Dhaka

Dr. Md. Sanaullah, Director-General (Agriculture), IMED, Ministry of Planning, Government of the People's Republic of Bangladesh, Sher-e-Bangla Nagar, Dhaka

Mr. M. Enamul Haque, Director-General, Department of Agricultural Extension, Farm Gate, Dhaka

Mr. Anwar Iqbal, National Project Director, BGD/95/006-GIS Project, BARC, Farm Gate, Dhaka

Mr. J. Mitra, Chief, Operation Service, RAPR, FAO Regional Office in Bangkok, Bangkok

Mr. Hiroyuki Konuma, Representative, FAO, Dhaka

BGD/95/006/TPR

6 August 1998

Summary of Tri-partite Review Meeting Report	Bring-up date: 03 June 1999
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PART A

1. Project Number: BGD/95/006
- Project Title: Utilization of Agro-Ecological Zones Data Base and Installation of Geographic Information System for Agricultural Development
- Review Date: 29 July 1998

2. Agenda of the meeting:

- i.
 - a. Presentation of project profile by NPD
 - b. Issues critical to project presented by NPD
- ii. Remarks by:
 - a. Chairperson
 - b. FAO representative
 - c. UNDP representative
- iii. Review of issues raised in the meeting by the Chairperson
- iv. Other issues
- v. Summary of recommendations/decisions by the Chairman

3. Background documentation

1st

TPR

The Tripartite Review (TPR) is the second one held on the project, the first being the Inception TPR held in 24 July 1997. The TPR was held essentially to review application of GIS database in the country and role of the project related to it, also to take stock of the current status of project implementation, discuss the difficulties and problems faced by the implementing and executing agencies, and for coming up with operational solutions and providing direction and guidance to the project as seen fit by all the agencies concerned.

4. Conclusions of the review concerning:

a. Progress of the project

The meeting expressed satisfaction over steps taken by the Executing and Cooperating Agencies this year for quickening the implementation of the project in view of one-year delay in project start up. With the commissioning of the GIS equipment in April, the meeting expressed the hope that the training and networking activities of the project would be geared up by the project management to meet the targets for this year. The meeting took note of the brief on AEZ/GIS application presented by the project management and appreciated the conciseness with which the potentials for utilization of AEZ/GIS system in the country were elaborated. The meeting was informed that 60% physical progress has been achieved in the project in total upto date while physical progress achieved for 1998 was 70 % so far.

b. Utilization of AEZ/GIS Database

The meeting, at the recommendation of UNDP endorsed by the Chairperson, decided that the AEZ/GIS database to be generated under the project should be treated as a national property and not that of any particular institution; and therefore must be available and accessible, free of cost, to any individual/institution/private or public organization interested in the data. This decision was made in the greater interest of agricultural development in the country.

c. Project Duration

The meeting was informed that the project signed in July 1995 actually started its activities in July 1996 with the joining of the NPD and long-term GIS expert. The project management requested that the duration of the 5-year project be extended accordingly upto 2001 in order to complete all activities as envisaged in the project design. UNDP agreed in principle to extending the project duration upto June 2001. However, the meeting noted that the TAPP would need to be revised accordingly.

d. Provision of remuneration for NPD

In view of the additional work load involved in the administration of this nationally executed project, the project management requested that the Government reconsider their proposal for provision of remuneration to NPD from GOB funds in addition to his regular salary since UNDP policies do not permit such remuneration. The meeting was informed that such a request would be difficult to entertain by the Government in view of implications related to other projects in the Country.

e. Provision of DSA at UN rate to BARC staff working as counterparts in the project

The meeting noted the difficulties faced by the BARC project counterparts during field visits with project staff and recommended UNDP to consider payment of DSA to the GOB counterparts at UN rate for the sake of uniformity in facilities provided for the teams visiting the field. UNDP agreed in principle to providing DSA at UN rate to the GOB project counterparts.

f. Recruitment of Agroclimatologist

The meeting noted that the recruitment of Socio-economist was under process. The meeting was informed that the position of Agroclimatologist was inadvertently shown for 12 work-months in the Project Document when in fact it should cover 24 work-months in total as per need of the project. Also that the 12 month contract period of the Agroclimatologist is over and the Executing Agency is unable to renew the contract unless the TAPP is revised to reflect the change. The NPD was advised to request UNDP to issue a contract for a short period, until the TAPP is approved and fresh contract issued by the Executing Agency to the expert.

g. Operations and Maintenance

The Executing Agency requested for enhancement of Operations & Maintenance budget cost in view of the inter-budget line adjustments made at the time of procurement of equipment with the understanding from UNDP that subsequently the funds would be replenished under O&M budgetline. UNDP agreed to consider the request in the next budget revision.

Other Issues

The meeting placed emphasis on completion of all training and study tour scheduled under 1998 and drew attention of the project management and FAO in this regard. The meeting also decided to expand the AEZ/GIS network by inclusion of more relevant institutions under it as suggested by FAO and UNDP.

i. Decisions and management actions to be taken

Decisions and Management Actions	Party Responsible	Target Time
1. AEZ/GIS database to be regarded as national Property accessible and available to any individual/private or public organization.	BARC/MOA	Immediately
2. Project duration to be extended upto June 2001. BARC to request UNDP for extension. TAPP to be revised accordingly.	UNDP BARC/MOA	Immediately
3. DSA at UN rate to be provided to GOB project counterparts during field trips.	UNDP/NPD	Immediately
4. Duration of Agro-climatologist to be extended to 24 work-months from current 12 work-months. TAPP to be revised accordingly.	UNDP BARC/MOA	Immediately
5. UNDP to issue contract to Agro-climatologist for 2/3 month-period, until revised TAPP is approved, upon request from Executing Agency.	UNDP/BARC	Immediately

Annex

List of Participants

A. GOVERNMENT

Ministry of Agriculture

Mr. Md. Abdul Halim, Additional Secretary, MOA
Mr. Mohammad Abdul Huq, Joint Secretary (Research), MOA
Mr. Kh. M. Abul Kalam, Deputy Secretary (Research), MOA

ERD

Mr. Mohammad Seraj Khan, Senior Assistant Secretary, ERD

BARC

Dr. M.S. Islam, Member-Director (In-charge), Soils Division, BARC
Mr. Mahbub Ahmed, Director (Computer Center), BARC
Mr. Anwar Iqbal, National Project Director, GIS Project, BARC

IMED

Mr. S.M. Nasim Uddin, Deputy Director, IME Division, Ministry of Planning

B. FAO

Mr. Hiroyuki Konuma, Representative, FAO, Dhaka
Begum Nurun Nahar, Programme Officer, FAO, Dhaka

C. UNDP

Ms. Shireen Kamal Sayeed, Assistant Resident Representative, UNDP

Section-3

Dated : 25.08.1998

Proceedings of the Tripartite Review Meeting

25-8-98
Shams-J-Ara Binte Huda
Senior Assistant Secretary
Ministry of Agriculture.

1. Secretary, ERD (Attn: Mr. Mohammad Siraj Khan, Senior Assistant Secretary)
2. Executive Chairman, BARC, Farm gate, Dhaka.
3. Joint Secretary (Res.), Ministry of Agriculture.
4. Mr. Hiroyuki Kurohara, FAO Representative in Bangladesh.
5. Mr. Shiroen Feroz Saqeeb, Assistant Resident Representative, UNDP.
6. Mr. S.H. Nasim Uddin, Deputy Director, IIE Division, Ministry of Planning.
7. Begum Nurun Nahar, Programme Officer, FAO.
8. PS to the Secretary, Ministry of Agriculture.
9. Mr. Anwar Iqbal, National Project Director, GIS-Project, BARC.
10. Mr. Mahbub Ahmed, Director (Computer Centre), BARC.
11. PS to the Addl. Secretary, Ministry of Agriculture.

বিদ্যারী (অধ্যয়ন) এর সময়	তারিখ (—)
১ম পাঠ (১ম অধ্যায়)	তারিখ (১ম অধ্যায়)
২য় পাঠ (২য় অধ্যায়)	তারিখ (২য় অধ্যায়)
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১০ম পাঠ (১০ম অধ্যায়)	তারিখ (১০ম অধ্যায়)

Proceedings of the Tripartite Review Meeting of the UNDP/FAO
Project "Utilization of AEZ Database and Installation of GIS for
Agricultural Development" being implemented by the Bangladesh
Agricultural Research Council.

The above meeting was held on 29 July 1998 at 11.00 AM in the Conference Room of the Ministry of Agriculture. It was presided over by Mr. Abdul Halim, Additional Secretary, Ministry of Agriculture. The list of participants is given in Annexure I.

The Chairperson welcomed the participants of the meeting. On invitation from the chair, the Project Performance Evaluation Report (PPER) was presented by Mr. Anwar Iqbal, National Project Director (NPD), of the project. During his presentation, the NPD gave the project background and briefly touched upon the causes for delay in initiation of the project.

After the introductory part, the NPD made his presentation concentrating on the project activities and achievements made so far. At this stage he drew the attention of the participants on the working paper and the Project Performance Evaluation Report circulated. The NPD said that, GIS equipments procured by FAO/UNDP have been installed and handed over to BARC only on 27/04/98. Out of the seven foreign training programmes on GIS (12 and 6 months duration), four have been executed and another three are under process by FAO. Twelve core BARC staff and 80 focal points and working scientists representing various NARS, DAE, NGO's AEZ/GIS network institutions have been oriented/trained on the subject.

On technical issues, he added that, all available relevant data on soil, crop, climate and hydrology within country have been transferred to BARC or procured. Efforts are underway to induct socio-economic variables in the database. A detailed training manual on AEZ/GIS methodology and applications have been prepared and published. By now twenty project reports on database management, crop modeling, workshop proceedings have been prepared. Effective collaboration for joint activities has been established within the country with NARS, BMG, SPARRSO, SWHC, EGIS, LGED, BBS, DAE and outside the country with IPRI, ICR100, IFDC, IIASA, University of Hawaii and Oxford University.

As regards Training/Hanpower Development, the NPD informed the house that, a high level two-days sensitization workshop on AEZ/GIS for one hundred persons has been successfully implemented during 29-30 June 1997. Consultative group meeting/Training on five different programme areas (Soil, Crop, Climate, Computer and Socio-Economic) has been implemented with the participation of 120 officers during 10-15 August 1997. Training Workshop on inclusion of Socio-Economic parameters in the AEZ/GIS Database System for 30 high level scientist was organized on 10 March 1998. Seven advance training programmes on GIS software (Arc View and Arc Info), UNIX, Oracle. Advance Arc View and Arc Info have been executed for the GIS core group, IARIS and DAE during 15 February to 16 June 1998. Training workshop on AEZ /GIS for 120 teachers, researchers, extension workers and NGO's was organized in Hazi Md. Danesh Krishi College, Dinajpur during 21-22 March 1998. A Two weeks training on "AEZ/GIS Methodology and Applications" was held during 14-30 June 1998. Seminars/training programmes were also organized on AEZ in the Bangladesh Agricultural University, Mymensingh, in Jessore, Chittagong and in Brahmanbaria for the teachers, researchers, extensionists and the NGO personnel during pre-GIS conception period. A series of training programmes for the AEZ/GIS network institutions for seven days, fifteen days, two/three months duration are planned as per project provision.

Review of the last TPR meeting :

1. Mr. Iqbal briefly reviewed the follow up actions taken since last TPR held on 24 July 1997. As decided earlier, and since significant progress has been achieved, the question of resolving project time extension has matured. As the NPD joined in July 1996 and the first quarter fund was also released by UNDP in July 1996, the project time-frame needs counting from July 1996-June 2001. For that, a Revised TAPP is under process of submission to HDA.

2. For purchase and release of the second installment of the GIS equipments, CD VAT fund of Tk. 15 lakh is available in the ADP of 1998-99.

3. As per decision taken in the last TPR, hiring a Messenger-cum-photocopy operator under GOB, instead of two is included in the revised TAPP.
4. POL under Operation & Maintenance : POL under Operation & Maintenance is to be increased as some funds were diverted earlier and the cost of POL has increased, UNDP agreed to increase/provide fund under Operation & Maintenance subject to exhaustion.
5. TA/DA for core BARC staff : UNDP agreed to make payment at UNDP rate on getting project's request.
6. Salary of local consultants and Project Staff: Already enhanced and rationalized by UNDP.
7. Honourarium for the NPD and core BARC staff: As per decision of the last TPR, Honourarium for the NPD and core BARC staff is included in the revised TAPP under GOB funding. MOA's approval is sought. The Chairperson remarked that MOA would look into the matter. UNDP representative said, she would be happy if it is done.

The NPD raised the question of anomaly in the combined Delivery Report (CDR) submitted by UNDP/FAO. The report sometimes combines several budget items in showing the expenditure. This creates problem in finding out the actual expenditure in certain line item and reflecting it in PPER. FAO Representative assured to look into the matter and do the needful.

The Chairperson emphasized that the beneficiaries must know what GIS project can offer. He suggested for straightening the facilities, build up manpower on GIS conduct more users training, and make use of the facilities for localized planning. He also stressed the need for incorporation of Socio-Economic information in the system.

Ms. Shireen Kamal Sayeed of UNDP appreciated the progress made by the project after handing over of the GIS installation took place on 27 April 1998. She stressed the need for conducting more training programmes and

complete all planned ones this year. She congratulated the NPD for establishing a good base of Network. She agreed on the extension of the project duration up to June since the fulltime NPD joined in July 1997.

Mr. Hiroyuki Konuma of FAO in his comment said that though there was delay in the start strong efforts by the project have accelerated the work. Regarding the AEZ/GIS network, he said that Forestry sector is missing and may be included. Joint Secretary (Res.) said more agencies like SOB, JNU, DLRS etc., to be included as Members of the network.

In reply to queries of His G.N. Mahar of FAO and IMED's representative, the NPD gave brief account on the foreign training and on the physical progress so far achieved.

Decisions taken are as follow (Summary of actions required to resolve some important issues and the responsible parties to be involved is presented in Annexure-2):

1. **Extension of Project period** : UNDP endorsed extension of project period from July'96 to June 2001. The Chairperson agreed that there should not be any problem in extension. Revised TAPP to be submitted for approval.
2. **Messenger-cum-Photocopy Operator** : A Messenger-cum-Photocopy Operator is to be recruited under GOB funding by the project Revised TAPP to reflect this issue.
3. **Additional telephone** : One Additional telephone within the GOB's allocation of Tk. 4 lakh for the entire project. This telephone line is necessary exclusively for the INTERNET. This is included in the revised TAPP which may be approved by the government.
4. **Local digitization** : The existing system for getting the job done through contractors is too lengthy. Project has already approached UNDP/FAO to do it by them. FAO is working on it. UNDP's ARR said, she may also explore in doing it by UNDP's operation unit if FAO's process is too lengthy.
5. **TA/DA for core BARC staff** : UNDP agreed to make payment at UNDP rate on getting project's request.

6. **Honourarium for the NPD and core BARC staff** : As per decision of the last TPR, Honorarium for the NPD and core BARC staff is included in the revised TAPP under GOB funding. MOA's approval is sought.
7. **Local consultancy on Agro-climatologist** : One year more of the local consultancy on Agro-climatologist was proposed by the project. UNDP/FAO agreed already, now MOA to agree. The provision is included in the revised TAPP. On this matter UNDP's representative said, to save time UNDP may also consider recruiting the person for a period of 3 months on submission of request by the project along with necessary papers, like last selection committee minutes etc. By the time, the government approves TAPP, BARC can recruit that person for the rest period.
8. **AEZ/GIS Network expansion** : AEZ/GIS network to be expanded with the inclusion of other related organizations like Forest Department, Jahangir Nagar University, SOB, DLRS, etc.
9. **AEZ/GIS database under the project should be treated as a National Property** and should be easily accessible to all those who need it and should also be available free of cost, to UNDP's sponsored projects.

The Chairperson in his concluding remark said that everything has gone well and significant progress has been made so far. Some problems need to be solved. Finally, the NPD was asked to submit the revised TAPP within shortest possible time for consideration and approval by the government.

The meeting ended at 12.45 with vote of thanks to and from the chair.

Sd/-

10-8-98

(Md. Abdul Halim)
Additional Secretary
Ministry of Agriculture

ANNEXURE - I

The following were present at the meeting :

1. Mr. Mohd. Abdul Muq, Joint Secretary (Res.), Ministry of Agriculture.
2. Mr. Hiroyuki Konomu, FAO Representative in Bangladesh.
3. Dr. M.S. Islam, Member Director, Soils Division, BARC.
4. Ms. Shireen Kamal Sayeed, Assistant Resident Representative, UNDP.
5. Mr. Kh. M. Abul Kalam, Deputy Secretary (Res.) Ministry of Agriculture.
6. Mr. S.M. Nasim Uddin, Deputy Director, IHE Division, Ministry of Planning.
7. Begum Nurun Nahar, Programme Officer, FAO.
8. Mr. Mohammad Siraj Khan, Senior Assistant Secretary, ERD.
9. Mr. Mahbub Ahmed, Director (Computer Centre), BARC.
10. Mr. Anwar Iqbal, National Project Director, GIS-Project, BARC.
11. Mr. Molla Wahiduzzaman, Senior Assistant Secretary, Ministry of Agriculture.

मनश्चलाख्ये वास्तवस्य ज्ञानस्य
 कृति मञ्जुनाथः
भाग-३

३२-कृति-७/गार्क-टि.एचि.सि-८/६३/३७४

डाविग : २१-१०-७६ मृः
 ७-१-१९०९ वा१

१०० : मोता आच्छुक्तामान
 जिनिकर अङ्कानो अटिन ।

निर्वाही चेष्टावस्थान,
नाशत्वादनं कृत्ति प्रत्यक्षना कण्ठेदिमत्ता
मार्गविशुद्धे, एवम् ।

বিত্ত : FAO কর্তৃক GIS অনুশীলন করা অনুশীলন করা একটি কম্পিউটারে বিজ্ঞান
IBCS-Primax Software (Bangladesh) Ltd. কে পরিচালনা।

क्र. : अनामसिंह १३-१०६/एकपिठे/०३ तारीख २९-०६-२०११ सी:

電磁料,

আদিষ্ট হইয়া জানাযেগুদি লে, টিএসিডি-এর শর্ত এবং প্রচলিত আর্থিক নীতি মোতাবেক স্থায়ী কোম
পানিচালকে CDVAI নামে কোম লব্ধ পণ্ডিত্য করা যাক না। তবে আর্থিক লব্ধি আদায়ের ব্যবস্থারক্ষণ
প্রতিষ্ঠান পাঠেই থাকুক বা TARP টি বহুপাক্ষিক কঠিনতার মানদণ্ডে গ্রহণ কনিত হইবে।

कर्ममात्रं फलस्य विनिर्वाहयि-एतन्मयि चैवमासी कर्मनिर्वाहयत कर्मजन विद्वान् इत्येक कश्चिदेवेति वा किंनिवा
चत्तीन मात्मान इत्येक केन ज्ञातव्य कर्मात् विनिर्वाहयि कथा कृति गङ्गाप्राप्तवत् कर्मा एकदि विवक्तव्य जनज्ञान भूति

একতালিকা, দাখী কর্মসম্পাদন নিবন্ধে পাড়িয়ে রাখা হয় এবং উক্ত গণনাগুলিকে অবশিষ্ট
কর্মসম্পাদন এবং TAPF দি কর্মসম্পাদন রাখা হয় এবং কঠিন নিষ্পত্তি জোগালেক অনুমোদন করা হয়।

১৯৭৭-৭৮, ১৯৭৮-৭৯,

(गीता आदर्शसूक्तम्)
विनित्त अङ्गात् अङ्गि ।

[illegible]

वत्तविज,

सुखे आकर्षण : पोः वहेनुन होलन,
गहरात्री कपिननात्र ।

पुनः कृतम् प्रमाणम् ॥
नं-६-१११(१४) छेकात्री / एकलिके-कालके / २०००२० डा २०-१-२०२०

উপর্যুক্ত বিষয়ে সূত্রে উল্লিখিত গণের প্রেক্ষিতে জানানো যাচ্ছে যে উন্নয়ন প্রকল্প সম্পূর্ণ
অর্থ প্রাপ্তি ও ব্যবহার নির্দেশিকা সংশ্লিষ্ট অর্থ বিভাগের উন্নয়ন শাখা-১ এর স্মারক নং-অস/
অসি/উন্নয়ন-১/সিবিগ-৩৬/১৭/৩৩১৫০০০০) তারিখ-২১-৭-১৭ ইং এর অনুলেপ ১°০৩(বি)
অনুযায়ী শুল্ক ও মূল্য সংযোজন কর বাবদ অব্যাহতি অর্থ পরবর্তী অর্থ বৎসরে বরাদ্দের মাধ্যমে
সম্পন্ন করতে হবে। শিডিং ভাউচ বাবদ অব্যাহতি অর্থ অন্য ষাটে সহানুভূতির ভিত্তিতে জামান রাখা হবে।
এসকালসহায় অব্যাহতি অর্থের ব্যাপারে বাংলাদেশ কৃষি গবেষণা কাউন্সিল জে কৃষি মন্ত্রণা-
লয়ের মাধ্যমে যোগাযোগ করতে পরামর্শ দেওয়া যেতে পারে।

387: —

(মোঃ মাহমুদ হোসেন)
 মহাকালী প্রধান শিক্ষার নরুণ কর্মকর্তা।
 ফোন- ৪১০৬৩১০

818-22/6/26

नं- वि०३/कृषि/वि-७/२६/८६-८/७,

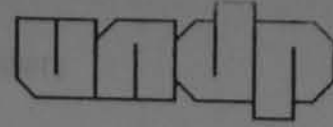
पञ्चगवित्तं जना पञ्च गिनि श्रेष्ठं कृता प्रदेत ।

ॐ नमो भगवते वासुदेवाय ।
 नमो भगवते वासुदेवाय ।
 नमो भगवते वासुदेवाय ।

১১-৮-৭৪
(জাঃ বাইপুঃ হোলন)

গৃহকারী প্রশান হিমাব রক্ষণ কর্মসূচী।
ফোন- ৩১০৬৩১।

[illegible]



BGD/95/006/PD

5 August 1998

Dear Mr. Iqbal,

BGD/95/006 – GIS at BARC

This is in reference to your letter of 27 July 1998 regarding the extension of duration of the above mentioned project upto June 2001.

Considering the late start of the project activities and as per TPR decision of 29 July 1998 we are pleased to provide UNDP's concurrence on the proposed extension of duration of the project upto 30 June 2001 with the understanding that the total project budget remains intact.

With best regards.

Yours sincerely

Mohammad Ali Ashraf
Programme Officer
for Resident Representative

Mr. Md. Anwar Iqbal
National Project Director
BGD/95/006
BARC, Farmgate
New Airport Road, Dhaka 1215

cc: Dr. A.M.M. Shawkat Ali, Secretary, Ministry of Agriculture, Government of the People's Republic of Bangladesh, Bangladesh Secretariat, Dhaka.

Dr. Z. Karim, Executive Vice-Chairman, BARC, Farmgate, Dhaka

Mr. K.M. Nazmul Alam Siddiqui, Joint Secretary (UN), ERD, Ministry of Finance, Shere-Bangla Nagar, Dhaka.

Mr. Hiroyuki Konuma, Representative, FAO, Dhaka.

অনুবাদিতঃ ২। গচিব মহাস্থানগড় একান্ত গচিব, কুবি মন্ত্রণালয়, বাংলাদেশ গচিবালয়, ঢাকা ।

চেক লিষ্ট

প্রকল্প অনুমোদন প্রক্রিয়াকরনের বিভিন্ন পর্যায়

সাব-সেক্টর :

বাস্তবায়নকারী সংস্থা :

উদ্যোগী মন্ত্রণালয় :

প্রকল্পের নাম:

ক্রম	পদক্ষেপ/পর্যায়	পিসিপি/টিএপিপি প্রকল্প অনুমোদন প্রক্রিয়াকরনের পর্যায় (তারিখ উল্লেখ করতে হবে)
১।	বাস্তবায়নকারী সংস্থা কর্তৃক প্রকল্পের পিসিপি/টিএপিপি মন্ত্রণালয়ে প্রেরণের তারিখ	
২।	মন্ত্রণালয় কর্তৃক প্রকল্পের পিসিপি/টিএপিপি পরিকল্পনা কমিশনে প্রেরণের তারিখ	
৩।	প্রকল্পের পিসিপি/টিএপিপি"র উপর প্রি-একনেক/এসপিইসি,র সভা	
৪।	পরিকল্পনা মন্ত্রী/প্রতিমন্ত্রী কর্তৃক পিসিপি/টিএপিপি অনুমোদনের তারিখ	
৫।	প্রকল্পের পিসিপি/পিপি উপর একনেকর সভা (অবগতি /অনুমোদন সংক্রান্ত)	
৬।	সংস্থা কর্তৃক প্রকল্পের পিপি প্রণয়নের মন্ত্রণালয়ে প্রেরণের তারিখ	
৭।	প্রকল্পের উপর মন্ত্রণালয় কর্তৃক ডিপিইসি/ডিএসপিইসি,র সভা	
৮।	ডিপিইসি/ডিএসপিইসির আলোকে পুনর্গঠিত পিপি/টিএপিপি সংস্থা কর্তৃক মন্ত্রণালয়ে প্রেরণের তারিখ	
৯।	মাননীয় মন্ত্রী/প্রতিমন্ত্রী কর্তৃক প্রকল্পের পিপি/টিএপিপি চূড়ান্ত অনুমোদনের তারিখ	
১০।	মন্ত্রণালয় কর্তৃক প্রসাশনিক আদেশ জারী	

অতি জরুরী
বিশেষ বাতক সারকত

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিকল্পনা কমিশন
কৃষি বিভাগ
ফসল উইং

নং-পক/কৃষি/ফসল/বিবিধ-৩৯/৯৮/

তারিখ : ০১ ফেব্রুয়ারী, ১৯৯৯
১৯ মাঘ, ১৪০৫

বিষয় : গত ১৭ জানুয়ারী, ১৯৯৯ তারিখে পরিকল্পনা কমিশনে অনুষ্ঠিত গ্রাক-একনেক/আফঃ মন্ত্রণালয়/বিশেষ প্রকল্প মূল্যায়ন কমিটির সভার কার্যবিবরণী।

নিম্নোক্ত প্রকল্পগুলি বিবেচনার জন্য গত ১৭-০১-৯৯ তারিখে পরিকল্পনা কমিশনের সদস্য (কৃষি) মহোদয়ের সভাপতিত্বে অনুষ্ঠিত গ্রাক-একনেক/আফঃ মন্ত্রণালয়/বিশেষ প্রকল্প মূল্যায়ন কমিটি সভার কার্যবিবরণী সদস্য অবগতি ও প্রয়োজনীয় কার্যক্রম গ্রহণের জন্য নির্দেশক্রমে এতদসঙ্গে প্রেরণ করা হইল।

- ১) মসুর, মাসকলাই ও মুগ ডালের উৎপাদন বৃদ্ধির পাইলট প্রজেক্ট (সংশোধিত)
২) ইউটিলাইজেশন অব এগ্রো ইকোলজিক্যাল রেনুস (এইজ্জেড) ডাট বেইন্স এন্ড
ইনস্টলেশন অব জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট (সংশোধিত) (কারিগরী
সহায়তা প্রকল্প)
৩) এগ্রিকালচারাল সার্ভিসেস ইনোভেশন এন্ড রিফর্ম প্রজেক্ট (এএসআইআরপি)

সংযুক্তি : বর্ণনামতে।

(অমূল্য কুমার দেবনাথ)
সিনিয়র সহকারী প্রধান
ফোন : ৯১১৩৪১৬

বিতরণঃ

- ১। সচিব, কৃষি মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ২। সচিব, সংস্থাপন মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৩। সচিব, অর্থ বিভাগ, অর্থ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৪। সচিব, অর্থনৈতিক সম্পর্ক বিভাগ, শেরে বাংলা নগর, ঢাকা।
- ৫। সচিব, আইএমইডি, শেরে বাংলা নগর, ঢাকা।
- ৬। সচিব, পরিবেশ ও বন মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৭। সচিব, মহিলা বিষয়ক মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৮। সচিব, বিজ্ঞান ও প্রযুক্তি মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৯। চেয়ারম্যান, জাতীয় রাজস্ব বোর্ড, সেফন বাগিচা, ঢাকা।
- ১০। বিভাগীয় প্রধান, কৃষি, পানি সম্পদ ও গরী প্রতিষ্ঠান বিভাগ, পরিকল্পনা কমিশন, ঢাকা।
- ১১। বিভাগীয় প্রধান, কার্যক্রম বিভাগ, পরিকল্পনা কমিশন, ঢাকা।
- ১২। মহা-পরিচালক, কৃষি সম্প্রদায় অধিদপ্তর, খামার বাড়ী, ফার্মগেইট, ঢাকা।
- ১৩। মহা-পরিচালক, বাংলাদেশ কৃষি গবেষণা ইনস্টিটিউট, জামদেবপুর, গাজীপুর।
- ১৪। নির্বাহী সভাপতি, বাংলাদেশ কৃষি গবেষণা কাউন্সিল, খামারবাড়ী, ফার্মগেইট, ঢাকা।
- ১৫। সেন্সর ম্যানুয়াল, হারটেক ফাউন্ডেশন, ৩/১, ব্রক-বি, লাশমাটিয়া, ঢাকা।

সদস্য অবগতির জন্য অনুলিপি :

- ১। সদস্য (কৃষি) মহোদয়ের একান্ত সচিব, পরিকল্পনা কমিশন, ঢাকা।
- ২। মুদ্রা-প্রদান (ফসল) মহোদয়ের ব্যক্তিগত কর্মকর্তা, পরিকল্পনা কমিশন, ঢাকা।
- ৩। মুদ্রা-প্রদান (পরিকল্পনা) মহোদয়ের ব্যক্তিগত কর্মকর্তা, কৃষি মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিকল্পনা কমিশন
কৃষি বিভাগ
(ফসল উইং)

বিষয় : প্রাক-একনেক/আন্তঃমন্ত্রণালয়/বিশেষ প্রকল্প মূল্যায়ন কমিটি সভার কার্যবিবরণী।

গত ১৭ই জানুয়ারী, ১৯৯৯ তারিখে পরিকল্পনা কমিশনের সদস্য (কৃষি) মহোদয়ের সভাপতিত্বে নিম্নোক্ত প্রকল্পগুলি বিবেচনার জন্য প্রাক-একনেক/আন্তঃমন্ত্রণালয়/বিশেষ প্রকল্প মূল্যায়ন কমিটির এক সভা অনুষ্ঠিত হয়। সভায় উপস্থিত কর্মকর্তাবৃন্দের তালিকা সংযোজনী-ক তে সন্নিবেশিত হইল:

- ১) মসুর, মাসকলাই ও মুগ ডালের উৎপাদন বৃদ্ধির পাইলট প্রকল্প (সংশোধিত)।
- ২) ইউটাইলিটাইজেশন অব এগ্রো ইকোলজিক্যাল জোনস্ (এইজেড) ডাটা বেইজ এন্ড ইনস্টলেশন অব জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট (সংশোধিত) (কারিগরী সহায়তা প্রকল্প)।
- ৩) এগ্রিকালচারাল সার্ভিসেস ইনোভেশন এন্ড রিফর্ম প্রকল্প (এএসআইআরপি)।

আলোচ্যসূচী-১: মসুর, মাসকলাই ও মুগ ডালের উৎপাদন বৃদ্ধির পাইলট প্রকল্প (সংশোধিত) (প্রাক্কলিত ব্যয় ১০২৬.০০ লক্ষ টাকা)

বাস্তবায়নকারী সংস্থা : বাংলাদেশ কৃষি গবেষণা ইনস্টিটিউট (বারি)।

২। উপস্থাপনা :

সমাগত সকলকে স্বাগত জানাইয়া সভাপতি মহোদয় সভার কাজ আরম্ভ করেন। তাহার আমন্ত্রণক্রমে কৃষি মন্ত্রণালয়/বারির প্রতিনিধি প্রকল্পটিকে সভায় উপস্থাপন করেন। বলা হয় যে, ডাল উৎপাদনে দেশকে স্বয়ং সম্পূর্ণ করার লক্ষ্যে মসুর, মুগ ও মাস ডালের উন্নত জাত উদ্ভাবন, ব্যয় সাশ্রয়ী উৎপাদন প্রযুক্তি উন্নয়ন এবং শস্য সংগ্রহোত্তর সংরক্ষণ প্রযুক্তি উদ্ভাবনসহ কৃষিপন্থ উদ্দেশ্যাবলী অর্জনের জন্য পাইলট ভিত্তিতে এই প্রকল্পটি প্রণীত হয় এবং গত ৩০-১০-৯৭ তারিখে ইহার পিপি অনুমোদিত হয়। মূল প্রকল্পে বৃহত্তর ফরিদপুর জেলার কোন সরকারী খাস জমিতে এতদুদ্দেশ্যে একটি ডাল গবেষণা স্টেশন স্থাপনের ব্যবস্থা রাখা হইয়াছিল। খাস জমিতে প্রস্তাবিত স্টেশনটিসহ অন্যান্য কার্যক্রম গ্রহণ করার পরিকল্পনা থাকায় প্রকল্পের জন্য জমি অধিগ্রহণ/ক্রয় বাবদ কোন ব্যয় অন্তর্ভুক্ত ছিল না। কিন্তু পরবর্তীতে 'সাইট সিলেকশন' কমিটি কর্তৃক মাদারীপুরের কাছিরটাক এলাকায় ৩০ একর জমি অধিগ্রহণের প্রস্তাব করা হয় এবং মন্ত্রণালয় কর্তৃক এই প্রস্তাব অনুমোদিত হয়। তবে এই প্রসঙ্গে তিনি উল্লেখ করেন যে ফরিদপুর জেলা সকল ধরনের ডাল উৎপাদনের জন্য সবচেয়ে উপযোগী এলাকা। তাই এই সাব-স্টেশনটি ফরিদপুর জেলায় নির্মিত হইলে উহা ডাল গবেষণার জন্য সহায়ক হইবে। এ প্রেক্ষিতে পরিকল্পনা কমিশন হতে বলা হয় যে মন্ত্রণালয় কর্তৃক নির্বাচিত স্থান পুনঃ পরিবর্তনের ব্যাপারে এই সভায় মতামত দেওয়ার অবকাশ নাই। জমি অধিগ্রহণের নিমিত্ত প্রকল্পে ১২০ লক্ষ টাকার প্রস্তাব অন্তর্ভুক্ত করা হইয়াছে। জমি অধিগ্রহণ জনিত এই ব্যয়ের অন্তর্ভুক্তি এবং মূল্যবৃদ্ধি জনিত অনুমোদিত ব্যয় হ্রাস পাওয়ায় প্রকল্পটিকে সংশোধনের প্রয়োজন দেখা দেয়। ইহাও বলা হয় যে, সংশোধনের ফলে প্রকল্পটির অনুমোদিত ব্যয় ৯৩২.৯৭ লক্ষ টাকার স্থলে ১০২৬.০০ লক্ষ টাকায় দাঁড়াইয়াছে।

৩। আলোচনা :

- ৩.১ প্রকল্প সংশোধনের কারণসহ সংক্ষিপ্ত উপস্থাপনার পর প্রকল্পে প্রস্তাবিত জমির পরিমাণ বিষয়ে পরিকল্পনা কমিশনের সংশ্লিষ্ট উইং হইতে এই মত প্রকাশ করা হয় যে, ডাল গবেষণার জন্য একটি সাব স্টেশনসহ সংশ্লিষ্ট অন্যান্য কার্যক্রম গ্রহণে ৩০ একর জমির প্রস্তাব অত্যধিক। তাহাজ্জা জমি অধিগ্রহণসহ প্রকল্পটির সম্পূর্ণ ব্যয় স্থানীয় সম্পদে প্রস্তাবিত বিধায় এই ব্যয় হ্রাস করা প্রয়োজন। এই বিষয়ে কৃষি মন্ত্রণালয়/বারির পক্ষ হইতে বলা হয় যে, প্রকল্পের পরিকল্পিত উদ্দেশ্যাবলীর সম্বল বাস্তবায়নে প্রস্তাবিত জমির পরিমাণ পাঁচ একরের বেশী হ্রাস করা সম্ভব হইবে বলিয়া মনে হয় না। তবে উদ্যোগী মন্ত্রণালয় বিষয়টি পুনঃ পরীক্ষার করিয়া দেখিবে এবং

জমির পরিমাণ ও ব্যয় হ্রাস করা সম্ভব না হইলে পিপিতে এতদবিষয়ে বিস্তারিত যৌক্তিকতা প্রদান করিবে।

৩.২ সভায় প্রকল্পটির অগ্রগতি বিষয়ে আলোচনা হয়। বলা হয় যে, প্রকল্পটির অগ্রগতি সন্তোষজনক নহে। এই বিষয়ে এডিপিতে প্রদত্ত বরাদ্দের অগ্রতুলতা, সাইট সিলেকশন ও জমি অধিগ্রহণে নিশ্চয়কে প্রকল্পের অগ্রগতির পক্ষে মূল অন্তরায় হিসাবে সনাক্ত করা হয়। সভায় আশা করা হয় যে, সংশোধিত এডিপিতে প্রকল্পের জন্য বরাদ্দ বৃদ্ধির প্রয়োজনীয় ব্যবস্থা নেওয়া সম্ভব হইবে। প্রকল্পের মেয়াদকাল বিষয়ে আলোচনাকালে বলা হয় যে, প্রকল্পের জন্য প্রস্তাবিত চার বৎসর মেয়াদের মধ্যে ইতোমধ্যে দুই বৎসর গত হইয়া গিয়াছে। অবশিষ্ট দুই বৎসরের মধ্যে প্রকল্পের কাজ সমাপ্ত করা যাইবে বলিয়া মনে হয় না। তাহাছাড়া এই দুই বৎসরে এত বিপুল পরিমাণ স্থানীয় মুদ্রা বরাদ্দও সম্ভবপর হইবে না। তাই আলোচনাক্রমে স্থির হয় যে, প্রকল্পটির মেয়াদ আরো দুই বৎসর বৃদ্ধি করিয়া দেখানো যাইতে পারে।

৩.৩ প্রকল্পটির আওতায় ডাল উৎপাদনের লক্ষ্যমাত্রার বিষয়ে সভায় আলোচনা হয়। বলা হয় যে, প্রকল্প ছকে কয়েকটি জেলায় তিন ছাতের ডাল উৎপাদনের লক্ষ্যমাত্রা দেওয়া হইলেও পানা ডিষ্ট্রিক্ট কোন লক্ষ্যমাত্রা দেওয়া হয় নাই। প্রকল্পের বাস্তবায়নকালীন অগ্রগতি মূল্যায়নের সুবিধার্থে প্রকল্প ছকে ডাল উৎপাদনের পানা ডিষ্ট্রিক্ট লক্ষ্যমাত্রা একটি প্রাক্কলন অন্তর্ভুক্ত করার প্রয়োজন রহিয়াছে। তাহা ছাড়া প্রকল্পের বাস্তবায়ন কাজ শুরু পর হইতে এই পর্যন্ত কতটুকু অগ্রগতি সাধিত হইয়াছে তাহার উদ্দেশ্যে প্রকল্প ছকে থাকা বাধ্যতাবহী। এই বিষয়ে বাগ্মীর প্রতিনিধি সভায় বলেন যে, বাংলাদেশ পরিসংখ্যান ব্যুরো হইতে প্রকাশিত বিভিন্ন ফসলের উৎপাদন পরিসংখ্যানে পানা ডিষ্ট্রিক্ট কোন তথ্য পাওয়া যায় না। ফলে প্রকল্পের আওতাধীন পানা ডিষ্ট্রিক্ট ডাল উৎপাদনের বেঞ্চ মার্ক নির্ধারণ করা সম্ভবপর নহে। বিধায় লক্ষ্যমাত্রা নির্ধারণেও অসুবিধা দেখা দেয়। তবে এই বিষয়ে তথ্যাবলী সন্নিবেশিত করার চেষ্টা করা হইবে। ইহাও বলা হয় যে, প্রকল্পে কার্যক্রমে পানাওয়ারী হিসাব রহিয়াছে যাহা হইতে বৎসরান্তে প্রকল্পের সার্বিক কার্যক্রমের অগ্রগতি মূল্যায়ন করা সম্ভব হইবে। প্রকল্পের আওতায় গত দেড় বৎসরে অর্জিত অগ্রগতি সম্পর্কে সভায় একটি তথ্যচিত্র তুলিয়া ধরা হয়। বলা হয় যে, পিপি রিকাস্ট করিবার সময় এইসব তথ্য পিপিতে সন্নিবেশিত করা হইবে।

৪। সিদ্ধান্ত :

উপরোক্ত আলোচনার পর সভায় নিম্নোক্ত সিদ্ধান্ত মতে প্রকল্প ছক পুনর্গঠন সাপেক্ষে অনুমোদনের জন্য সুপারিশ করা হয়:

- ক) উদ্যোগী মন্ত্রণালয় প্রকল্পে প্রস্তাবিত জমির পরিমাণ ও ব্যয় পুনঃ পরীক্ষা করিয়া হ্রাস করার প্রচেষ্টা গ্রহণ করিবে। জমির পরিমাণ ও ব্যয় হ্রাস করা সম্ভব না হইলে এই বিষয়ে পিপিতে যৌক্তিকতা প্রদান করিতে হইবে।
- খ) সংশোধিত বার্ষিক উন্নয়ন কর্মসূচী প্রণয়ন কালে প্রকল্পের জন্য পূর্ণাঙ্গ বরাদ্দ প্রদানের বিষয়টি বিবেচনা করা হইবে।
- গ) প্রকল্পটির মেয়াদ জুন, ২০০২ পর্যন্ত নির্ধারণ করা যাইতে পারে।
- ঘ) পিপি রিকাস্ট করিবার সময় পানা ডিষ্ট্রিক্ট উৎপাদনের লক্ষ্যমাত্রা সম্পর্কে যতদূর সম্ভব তথ্যাবলী সন্নিবেশিত করিতে হইবে। একইভাবে প্রকল্পের আওতায় এই লক্ষ্য অর্জিত লক্ষ্যফলের তথ্যভিত্তিক চিত্রও পিপিতে সন্নিবেশ করিতে হইবে।

আলোচ্যসূচী-২: ইউটাইলাইজেশন অব এগ্রো ইকোলজিক্যাল জোনস্ (এইজেড) ডাটা বেইজ এন্ড ইনস্ট্রেশন অব গ্রিআইএস ফর এগ্রিকালচার ডেভেলপমেন্ট (সংশোধিত) (কারিগরী সহায়তা প্রকল্প)। (প্রাক্কলিত ব্যয় : ১০৫৭.৯১ লক্ষ টাকা)

বাস্তবায়নকারী সংস্থা : বাংলাদেশ কৃষি গবেষণা কাউন্সিল (বার্ক)।

৫। উপস্থাপনা :

সভাপতি মহোদয়ের আমন্ত্রণক্রমে বাংলাদেশ কৃষি গবেষণা কাউন্সিল এর নির্বাহী চেয়ারম্যান প্রকল্পটিকে সভায় উপস্থাপন করেন। তিনি বলেন যে, মূলতঃ জাতীয়, আঞ্চলিক, জেলা ও পানা পর্যায়ে

কৃষি গবেষণা, সম্পদসারণ, উন্নয়ন কার্যাবলী এবং 'ল্যান্ড রিসোর্স এন্ড ইম্প্রুভমেন্ট প্রকল্প' এর ফলস্বরূপ পরিকল্পনাবীদ ও বিজ্ঞানীদের মধ্যে হস্তান্তর করা প্রকল্পটির উদ্দেশ্য। এতদুদ্দেশ্যে প্রকল্পের আওতায় জিআইএস ভিত্তিক কম্পিউটারাইজড ভূমি তথ্য পদ্ধতি প্রবর্তন, শস্য উৎপাদন, শস্য বহুমুখীকরণ এবং দুর্গোগ প্রস্তুতি কর্মসূচী পরিকল্পনা প্রণয়নে জিআইএস এর মাধ্যমে এই.ই.ডেড ডাটা ব্যবহারকরণ কার্যক্রম পরিচালনা করা হইবে। ইহাও বলা হয় যে, অনুমোদিত প্রকল্পের আওতায় 'দেশী/বিদেশী পরামর্শক সার্ভিস গ্রহণ, সহায়ক ছনবল নিয়োগ, যন্ত্রপাতি সংগ্রহ, স্থানীয় ও বিদেশে প্রশিক্ষণের মাধ্যমে মানব সম্পদ উন্নয়নের পরিকল্পনা বাস্তবায়িত হইতেছে। প্রকল্প সংশোধনের কারণ উল্লেখ করিয়া তিনি বলেন যে, মূল প্রকল্পটি গত ২৮-১২-৯৪ তারিখে ১০০০.৮৮ লক্ষ টাকায় অনুমোদিত হইয়াছে। তবে ইউএনডিপি'র সহিত সাহায্যচুক্তি স্বাক্ষরে বিষয়, প্রকল্প পরিচালক নিয়োগে বিলম্ব এবং এফএ.ও কর্তৃক জি.আই.এস বিশেষজ্ঞ নিয়োগদানে বিলম্ব হওয়ায় প্রকল্পের কাজ আরম্ভ করিতে প্রায় দুই বৎসর বিলম্ব হয়। এইসব কার্যক্রম সম্পাদন শেষে প্রকল্পের কাজ আরম্ভ হয় এবং গত দুই বৎসরে প্রকল্পের আওতায় ব্যয় হইয়াছে ৪৭৮.৭৭ লক্ষ টাকা। সূচনাতে বিলম্ব হওয়ায় প্রকল্পের অবশিষ্ট মেয়াদে প্রকল্পের পরিচালিত কার্যক্রম সমাপ্ত করা সম্ভব হইবে না বিধান প্রকল্পটির মেয়াদ বৃদ্ধিসহ ইহাকে সংশোধন করা হইয়াছে। ইহা ছাড়া, ডলারের সহিত টাকার বিনিময় হারের পরিবর্তন, আন্তর্জাতিক ও স্থানীয় পরামর্শকের বেতন বৃদ্ধি এবং যন্ত্রপাতিসহ অন্যান্য ব্যয়ে পরিবর্তনও সংশোধিত প্রকল্পে অন্তর্ভুক্ত করা হইয়াছে। ইহাচে সংশোধিত প্রকল্প ব্যয় অনুমোদিত ১০০০.৮৮ লক্ষ টাকা হইতে ১০৫৭.৯১ লক্ষ টাকায় বৃদ্ধি হইয়াছে।

৬। আলোচনা :

৬.১ সভাপতি মহোদয় প্রকল্পটির উপর আলোচনার সূত্রপাত করেন। তিনি সংশোধিত প্রকল্পে আন্তর্জাতিক ও স্থানীয় পরামর্শকের ব্যয় ও যন্ত্রপাতি খাতে ব্যয় বৃদ্ধির কারণ জানিতে চাহিলে বি.এ.আর.সি হইতে বলা হয় যে, মূলতঃ ইউএনডিপি কর্তৃক আন্তর্জাতিক পরামর্শকের ছনমাস প্রতি ব্যয় বৃদ্ধির কারণে আন্তর্জাতিক পরামর্শকের মোট ব্যয় বৃদ্ধি পাইয়াছে। একই সাপে স্থানীয় পরামর্শকের বেতনও বৃদ্ধি করা হইয়াছে। যন্ত্রপাতির ব্যয় বৃদ্ধির বিষয়ে বলা হয় যে, যন্ত্রপাতির মূল্য বৃদ্ধি ও কতিপয় ক্ষেত্রে অতিরিক্ত যন্ত্রপাতির প্রত্যাব অন্তর্ভুক্ত করায় এই খাতে মোট ব্যয় বৃদ্ধি পাইয়াছে। তবে যন্ত্রপাতি খাতে সিডি/ড্যাটের জন্য নির্ধারিত স্থানীয় মূল্য ব্যয় বহুশাংশে হ্রাস করা হইয়াছে।

৬.২ সভায় বিভিন্ন সংস্থা কর্তৃক জি.আই.এস পদ্ধতি ব্যবহারের বিষয়ে আলোচনা করা হয়। বলা হয় যে, বাংলাদেশ পরিসংখ্যান ব্যুরো, ভূমি জরীপ অধিদপ্তর, এলজিইডিসহ অনেক সংস্থায় জি.আই.এস পদ্ধতি ব্যবহৃত হয়। যদিও প্রত্যেক সংস্থার প্রয়োজন ও উদ্দেশ্যের দিক হইতে জি.আই.এস তথ্য পদ্ধতি ব্যবহারের বিভিন্নতা রহিয়াছে তথাপিও এইসব সংস্থার মধ্যে একটি কার্যকারী সমন্বয় থাকা বাধ্যনীয় যাহাতে সম্পদ ব্যবহারের ক্ষেত্রে কোন দ্বৈততা সৃষ্টি না হয়।

৬.৩ সভায় পরিকল্পনা কমিশনের সংশ্লিষ্ট উইং হইতে প্রণীত মতামতের আলোকে টিএপিপি'তে প্রয়োজনীয় সংশোধনের বিষয়ে মতামত গৃহীত হয়। প্রসংগত বলা হয় যে, টিএপিপি'তে প্রকল্পটির আওতায় এই পর্যন্ত ব্যয়িত অর্থ দ্বারা প্রকল্পের মূল উদ্দেশ্য কতটুকু অর্জিত হইয়াছে, সেই বিষয়ে তথ্যাবলী সন্নিবেশিত হওয়া প্রয়োজন। তাহাছাড়া সহায়ক ছনবলের অতিরিক্ত প্রদান ও ব্যয় অন্তর্ভুক্তির বিষয়েও যৌক্তিকতা প্রদান করা যাইতে পারে। প্রকল্পের বর্ধিত ব্যয় নির্ধারণ দাতাসংস্থা সম্মত আছে কিনা সেই বিষয়ে প্রয়োজনীয় তথ্যের উল্লেখও পিপি'তে থাকিতে পারে। শিক্ষা সফরের বিষয়ে আলোচনাকালে পরিণতিত হয় যে, মূল প্রকল্পে সংস্থানকৃত অর্থ হইতে অন্যান্যিত অর্থ দ্বারা বিএআরসি'র বিজ্ঞানীদের অতিরিক্ত শিক্ষা সফরের কর্মসূচী প্রকল্পে অন্তর্ভুক্ত করা হইয়াছে। এই প্রকল্পে মত প্রকাশ করা হয় যে, প্রস্তাবিত শিক্ষা সফরে বিএআরসি'র বিজ্ঞানীদের পাশাপাশি প্রকল্প সংশ্লিষ্ট মন্ত্রণালয় হিসাবে কৃষি মন্ত্রণালয় ও পরিকল্পনা কমিশনকে অন্তর্ভুক্ত রাখা যাইতে পারে।

৭। সিদ্ধান্ত :

বিস্তারিত আলোচনার পর সভায় নিম্নোক্ত সিদ্ধান্ত মতে টিএপিপি'টি গুনগঠন সাপেক্ষে অনুমোদনের জন্য সুপারিশ করা হয়ঃ

ক) এই প্রকল্পের আওতায় প্রস্তাবিত জি.আই.এস কর্মসূচী অন্য কোন সংস্থার কর্মসূচীর সহিত দ্বৈততা সৃষ্টি করিবে না মর্মে টিএপিপি'তে উল্লেখ থাকিবে।

৩) শিক্ষা সম্বন্ধে বি.এ.আর.সি'র বিজ্ঞানীদের পাশাপাশি প্রকল্প সংশ্লিষ্ট মন্ত্রণালয় বিশেষ করিয়া কৃষি মন্ত্রণালয় ও পরিকল্পনা কমিশনকে অন্তর্ভুক্ত করিতে হইবে।

सश्यागी मरुतः शर्तेन फाँडेलेन ।

তিনি বলেন যে, চলতি ১৯৯৮ সালের ডিসেম্বর মাসে বাস্তবায়নাধীন এগ্রিকালচারাল সাপোর্ট সার্ভিসেস প্রকল্পের প্রকল্প সাহায্য অর্থায়নের মেয়াদ শেষ হওয়ার প্রেক্ষিতে "এগ্রিকালচারাল সার্ভিসেস ইনোভেশন এন্ড রিসার্চ প্রকল্প (এএসআইআরপি)" নামে একই ধরনের আর্থিক ও বাস্তবায়ন ব্যবস্থাপনায় ৩ বছর মেয়াদী আয়োজ্য প্রকল্পটি আগামী ১৯৯৯ সালের জানুয়ারী মাস হতে শুরু প্রস্তাব করা হইয়াছে। এএসএসপি বাস্তবায়নের ফলে অর্জিত সাফল্য ধরে রাখা তথা কৃষি সম্প্রসারণ অধিদপ্তরের ব্যবস্থাপনা ও কারিগরী দক্ষতার মান উন্নীত করার উদ্দেশ্যে প্রস্তাবিত নতুন প্রকল্পের মূল উদ্দেশ্য। প্রকল্পটি ১২৫৯১.৩১ লক্ষ টাকা ব্যয় সাপেক্ষে বাস্তবায়নের জন্য প্রস্তাব করা হইয়াছে। এই ব্যয়ের মধ্যে বাংলাদেশ সরকার ৩৩৮৪.৩১ লক্ষ টাকা, আইডিএ ২৩২৫.০০ লক্ষ টাকা, ডিএফআইডি ৬৭৪২.৫০ লক্ষ এবং এফএও হতে ১৩৯.৫০ লক্ষ টাকা যোগানের কথা।

৯.১ আলোচনায় বলা হয় যে কৃষি সম্প্রসারণ অধিদপ্তরের আওতায়-আলোচ্য নূতন প্রকল্পটি গ্রহণের পূর্বে তথ্যটি এগ্রিকালচারাল সাপোর্ট সার্ভিসেস প্রকল্পটি বিদ্যমান পদ্ধতি অনুযায়ী আই,এম,ই বিভাগ কর্তৃক মূল্যায়নের প্রয়োজনীয়তা অনবর্যকার্য। সভায় এই বক্তব্যের সমর্থন করে আই,এম,ই ডি কর্তৃক জুন, ১৯৯৯ এর পূর্বে এই মূল্যায়নের কাজ সমাপ্ত করার নির্দেশ দেওয়া হয়। পরিকল্পনা কমিশনের প্রতিনিধি বলেন যে প্রকল্পের আওতায় যে সকল কার্যাবলী সম্পন্ন হইবে উহার অংগ ভিত্তিক সুনির্দিষ্ট বিবরণ আরো সুবিন্যস্তভাবে পিসিপিতে উল্লেখ পাকার প্রয়োজন। ইহা ছাড়া প্রকল্পের অংগ ভিত্তিক লক্ষ্যমাত্রার কোন উল্লেখ প্রকল্প সারণিতে নাই। সভায় প্রকল্পের অংগ ভিত্তিক লক্ষ্যমাত্রা নির্ধারণ করিয়া উহা প্রকল্প সারণিতে লিপিবদ্ধ করার সিদ্ধান্ত হয়। সভায় আরো বলা হয় যে, ৩১৪৮.০০ লক্ষ টাকা ব্যয়ে Collaborative activities খাতে যে ব্যয়ের প্রস্তাব করা হইয়াছে উহার সুস্পষ্ট তথ্যাদি প্রকল্প সারণিতে নাই। এই খাতে যে সমস্ত কার্যাবলী সম্পাদিত হইবে তাহার সুনির্দিষ্ট বিবরণ পিসিপিতে উল্লেখ সম্পর্কে সভায় একমত হয়।

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৯.৩ প্রস্তাবিত প্রকল্পের উদ্দেশ্যে বলা হইয়াছে যে চলতি প্রকল্পে সফলতা ধরিয়া রাখার জন্য প্রকল্পটি বাস্তবায়ন করা হইবে। এই প্রেক্ষিতে চলতি এসএসএপি প্রকল্পের কি কি সাফল্য অর্জিত হইয়াছে তাহা পিসিপিতে সুবিন্যস্তভাবে উল্লেখ করার সিদ্ধান্ত হয়। বিশ্ব ব্যাংকের সহায়তায় সাপোর্ট ফর হার্টিকালচার ডেভেলপমেন্ট নামে একটি প্রকল্প বাস্তবায়নাধীন থাকায় আলোচ্য প্রকল্পে একই খাতে ১২৩১.০০ লক্ষ টাকা ব্যয়ের যৌক্তিকতা জ্ঞানিতে চাওয়া হইলে হার্টেক্স ফাউন্ডেশনের প্রতিনিধি জানান যে চলতি প্রকল্পে বিশ্ব ব্যাংকের প্রতিনিধিত্ব সাহায্য পাওয়া না যাওয়ায় আলোচ্য প্রকল্পে এই খাতে ব্যয় অন্তর্ভুক্ত করা হইয়াছে। তিনি জানান যে ইতিমধ্যে বিদেশে চলতি প্রকল্পের অধীনে বিভিন্ন কৃষিজ পণ্যাদি রপ্তানী করিয়া বিপুল পরিমাণ বৈদেশিক মুদ্রা অর্জন করা হইয়াছে এবং বাংলাদেশের কৃষিজ পণ্য প্রথমবারের মত ইউরোপীয় সুপার মার্কেটে প্রবেশাধিকার পাইয়াছে। তিনি ইহাকে হার্টেক্স ফাউন্ডেশনের উল্লেখযোগ্য সাফল্য বলিয়া উল্লেখ করেন। কৃষিজ পণ্য রপ্তানীতে হার্টেক্স ফাউন্ডেশনের সাফল্যের উল্লেখসহ আলোচ্য প্রকল্পে ইহার অন্তর্ভুক্তি যৌক্তিকতা পিসিপিতে উল্লেখ সম্পর্কে সভায় সিদ্ধান্ত হয়। বিস্তারিত আলোচনার পর সভায় নিম্নোক্ত সিদ্ধান্ত মতে প্রকল্প সারপত্র পুনর্গঠন সাপেক্ষে অনুমোদনের সুপারিশ করা হয়।

১০। সিদ্ধান্ত :

- ক) প্রকল্প প্রতিলিপিকরণের বিদ্যমান নীতি অনুযায়ী বর্তমানে বাস্তবায়নাধীন এগ্রিকালচারাল সাপোর্ট সার্ভিসেস প্রজেক্ট (এএসএসপি) আইএমইডি কর্তৃক ছুন, ৯৯ এর পূর্বে মূল্যায়ন করিতে হইবে। এই মূল্যায়নের ভিত্তিতে আলোচ্য প্রকল্পের চূড়ান্ত প্রকল্প ছক প্রণয়ন করিতে হইবে।
- খ) Collaborative activities সম্পর্কে সুস্পষ্ট বর্ণনা এবং ইহার আওতায় যে সকল কার্যাবলী সম্পন্ন হইবে উহার উল্লেখ সহ এই খাতে ব্যয়ের বিস্তারিত বিভাজন প্রকল্প সারপত্রে উল্লেখ করিতে হইবে।
- গ) চলতি এএসএসপি প্রকল্পের অর্জিত সফলতা সুস্পষ্টভাবে পিসিপিতে উল্লেখ করিয়া ইহার মধ্যে কি কি কাজের দ্বারা বাহিকতা আলোচ্য প্রকল্পে রক্ষা করা হইবে তাহা প্রকল্প সারপত্রে উল্লেখ করিতে হইবে।
- ঘ) বিভিন্ন ক্ষেত্রে পরামর্শকের প্রয়োজনীয়তা পরামর্শকের মেয়াদ, পারিশ্রমিক ইত্যাদি বাস্তবতার নিরীক্ষে নির্ধারণ সংক্রান্ত বিস্তারিত তথ্যাদি ও যৌক্তিকতা প্রকল্প সারপত্রে উল্লেখ করিতে হইবে।
- ঙ) বর্তমানে সাপোর্ট ফর হার্টিকালচার ডেভেলপমেন্ট নামে একটি প্রকল্প বাস্তবায়নাধীন থাকায় বিবেচ্য প্রকল্পে 'হার্টেক্স ফাউন্ডেশন' খাতের অন্তর্ভুক্তি ও এই খাতে প্রস্তাবিত ব্যয়ের যৌক্তিকতা পিসিপিতে প্রদান করিতে হইবে।
- চ) প্রকল্পের আওতায় যে সকল কার্যাবলী গ্রহণ করা হইবে উহার অংশ ভিত্তিক বিবরণ বহুনিষ্টভাবে উল্লেখ সহ প্রকল্পের লক্ষ্যমাত্রা বর্ণনা সম্বন্ধে Quantified আকারে প্রকল্প সার-পত্রে উল্লেখ করিতে হইবে।

১১। অন্য কোন আলোচ্যসূচী না থাকায় সভাপতি মহোদয় সকলকে ধন্যবাদ জ্ঞাপন করিয়া সভার কাজ সমাপ্ত ঘোষণা করেন।

স্বাক্ষরিত/-

২৮/০১/৯৯ইং

(আবদুল হামিদ চৌধুরী)

সদস্য (কৃষি)

ও

সভাপতি, প্রাক-একনেক/

স্বাস্থ্য:মন্ত্রণালয় কমিটি/এসপিইসি।

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিচালনা কমিশন
কৃষি বিভাগ
(ফসল উইং)

নং-পক/কৃষি-১০৪/টি এমিডি/১১/

তারিখ : ০২-০১-১৫ ইং
১১-০১-১৪০১ বাং

বিজ্ঞপ্তি

নিম্ন স্বাক্ষরকারী নির্দেশক্রমে জানানো হচ্ছে যে, 'ইউটিনাইজেশন অব এগার্টা ইকোনডিক্যাল জোনস (এইজড) ডাটা রইজ এল। ইনফরমেশন অব জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট' শীর্ষক কারিগরী সহায়তা প্রকল্পটি বিগত ২৮-১২-১৪ ইং তারিখে যথাযথ কর্তৃপক্ষ কর্তৃক অনুমোদন লাভ করিয়াছে।

২। অনুমোদিত প্রকল্পের বাস্তবায়নকাল জুলাই, ১৯৯০ ইংতে জুন, ১৯৯১ পর্যন্ত এবং ইহার অনুমোদিত ব্যয় মোট ১০০০.৮৮ লক্ষ টাকা। মধ্যে এক ১৩/ইউএনডিপি ইংতে প্রকল্প সাহায্য হিসাবে মোট ৮০৯.৮৫ লক্ষ টাকা (৫৮৮.১৫ লক্ষ টাকা টেকনিক্যাল সহায়তা) পাওয়া যাইবে এক ১৩/ইউএনডিপি সম্মান প্রকল্প সাহায্য অনুদান হিসাবে প্রদান করিবে।

৩। যথাযথ কর্তৃপক্ষ কর্তৃক অনুমোদিত প্রকল্প হকের ১ (এক) কপি এতদসঙ্গে সংযোজিত হইবে।

৪। প্রকল্পটি সমাপ্তির ১৫ (পনের) দিনের মধ্যে বাস্তবায়ন প্রতিবেদন প্রস্তুতি প্রকল্পের নিকটে প্রেরণের অনুরোধ করা হইবে।

স্বাক্ষরিত কর্তৃক

২/১/১৫
(খোদাজা বেগম)
সহকারী প্রধান
ফোন : ৩১ ৬৯ ৯৮।

প্রতি,
কৃষি সচিবালয়,
বাংলাদেশ প্রচিবালয় ঢাকা।

অনুলিপি (সংযোজনীসহ) :

- ১। প্রতি, আর্থনৈতিক সঙ্গক বিভাগ, ঢাকার বাসনা নগর, ঢাকা।
- ২। প্রতি, অর্থ বিভাগ, বাংলাদেশ প্রচিবালয়, ঢাকা।
- ৩। প্রতি, সচিব, সচিবালয়, বাংলাদেশ প্রচিবালয়, ঢাকা।
- ৪। প্রতি, বাস্তবায়ন পরিদপ্তর ও অনুদান বিভাগ, ঢাকার বাসনা নগর, ঢাকা।
- ৫। নিবাহী সহ-সভাপতি, বিজ্ঞান, নতুন বিজ্ঞান বন্য প্রকল্প, ফার্ম রইজ, ঢাকা।

নির্বাহী চেয়ারম্যান এর দপ্তর বি এ অর সি. ঢাকা	মাইলি নং- 1295 তারিখ: 28/7/02
সং পঃ (মঃ ও অঃ)	পরিঃ (এস এম)
সং পঃ (এ ই অর এস)	পরিঃ (মর্দ)
সং পঃ (পসা)	পরিঃ (টি টি এম ইউ)
সং পঃ (পরিঃ ও হুজার)	পরিঃ (প্রশাসন)
সং পঃ (কৃষি)	পরিঃ (কৃষি)
সং পঃ (কৃষি প্রকৌশল)	পরিঃ (কৃষি)
সং পঃ (কৃষি পরি-৪/বার্ক)	পরিঃ (কৃষি)
সং পঃ (কৃষি)	পরিঃ (কৃষি)
সং পঃ (কৃষি)	পরিঃ (কৃষি)

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
কৃষি মন্ত্রণালয়
পরিচালনা শাখা-৪

তারিখ : ২০/৯/২০০১ইং

সহকারী প্রধান, কৃষি মন্ত্রণালয়, ঢাকা।

প্রাপক : প্রধান হিসাবরক্ষণ কর্মকর্তা
কৃষি মন্ত্রণালয়, সেগুনবাগিচা, ঢাকা।

বিষয় : 'ইউটিলাইজেশন অব এগ্রো-ইকোলজিক্যাল জোনস (এইজেড) ডাটাবেইজ এড ইনস্টলেশন অব
জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট (২য় সংশোধিত)' শীর্ষক কারিগরী সহায়তা প্রকল্পের
প্রশাসনিক অনুমোদন।

মহোদয়,

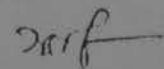
নির্দেশক্রমে জানানো গাইতেছে যে, 'ইউটিলাইজেশন অব এগ্রো-ইকোলজিক্যাল জোনস (এইজেড) ডাটাবেইজ এড
ইনস্টলেশন অব জিআইএস ফর এগ্রিকালচারাল ডেভেলপমেন্ট (২য় সংশোধিত)' শীর্ষক কারিগরী সহায়তা প্রকল্পটি মোট
১০১৭.১০ লক্ষ টাকা (দশ কোটি সত্তের লক্ষ দশ হাজার টাকা, জিওবি ৮৯.৪৯ ও পিএ ৯২৭.৬১ লক্ষ টাকা) প্রাক্লিট
বায়ে জানুয়ারী/৯৮ হইতে ডিসেম্বর/২০০১ইং সময়কালে বাস্তবায়নের লক্ষ্যে যথাযথ কর্তৃপক্ষ কর্তৃক অনুমোদিত হইয়াছে।

২। প্রকল্পটি জিওবি ও ইউএনডিপি সহায়তায় বাংলাদেশ কৃষি গবেষণা কাউন্সিল কর্তৃক বাস্তবায়িত হইবে।

৩। প্রকল্পটি বাস্তবায়নের জন্য সরকারের প্রশাসনিক অনুমোদন জারী করা হইল।

সংযুক্তি : ১ প্রস্থ বিপি।

আপনার অনুগত



(মোঃ ফিরোজ উদ্দিন)

সহকারী প্রধান

নং- কৃষিঃ পরি-৪/বার্ক -টিএ/এইজেড/২০০১/৪০২

তারিখ : ২০/৯/২০০১ইং

নিম্নের কপি সহ অনুলিপি সদয় অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য এতদসঙ্গে প্রেরণ করা হইল :

- ১। সচিব, অর্থ বিভাগ, অর্থ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ২। সচিব, সংস্থাপন মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৩। সদস্য (কৃষি), পরিকল্পনা কমিশন, শেরে বাংলা নগর, ঢাকা।
- ৪। সচিব, আইএমইডি, পরিকল্পনা মন্ত্রণালয়, শেরে বাংলা নগর, ঢাকা।
- ৫। সচিব, অর্থনৈতিক সম্পর্ক বিভাগ, শেরে বাংলা নগর, ঢাকা।
- ৬। নির্বাহী চেয়ারম্যান, বাংলাদেশ কৃষি গবেষণা কাউন্সিল, ফার্মগেট, ঢাকা।
(দৃঃ মোঃ প্রকল্প পরিচালক, কৃষি উন্নয়ন এইজেড ডাটাবেইজ ব্যবহার ও জিআইএস স্থাপন)
- ৭। যুগ্ম-পরিচালক (কৃষি), পরিকল্পনা কমিশন, শেরে বাংলা নগর, ঢাকা।
- ৮। যুগ্ম-সচিব (গবেষণা), কৃষি মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৯। চেয়ারম্যান, জাতীয় আর্থিক বোর্ড, সেগুন বাগিচা, ঢাকা।

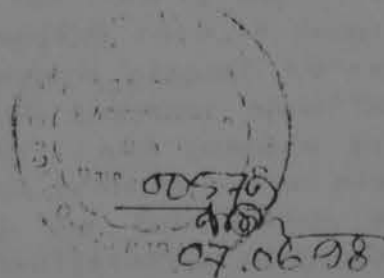
(মোঃ ফিরোজ উদ্দিন)

সহকারী প্রধান

অনুলিপি : সচিব মহোদয়কে ও সচিব, কৃষি মন্ত্রণালয়, ঢাকা।

APPROVED TAPP

UTILIZATION OF AGRO-ECOLOGICAL ZONES
(AEZ) DATA BASE AND INSTALLATION OF
GIS FOR AGRICULTURAL DEVELOPMENT



Executive Agency

BANGLADESH AGRICULTURAL RESEARCH COUNCIL

MINISTRY OF AGRICULTURE

1. Introduction.

The existing computerized Agro-ecological zone (AEZ) data base of Bangladesh includes information on soils, climate, landform, hydrology and land suitability of the country. It contains, in readily accessible and transportable form the physical resources data which will assist agricultural planning in Bangladesh.

A reconnaissance soil survey, carried out between 1963 and 1975, provided comprehensive information on soil, seasonal inundation and land use and interpretation in terms of land capability and crop suitability. A national appraisal of agricultural development possibilities was made in 1971, using reconnaissance soil survey data available upto 1970. The Land Resources activities in Bangladesh was initiated in 1979 under the FAO/UNDP Land Use Advisory Project. The objective, originally was to set up a natural resources data bank in the Ministry of Agriculture (MOA) so as to make Soil Survey information as a basis for more rational planning of agricultural development. In 1983, however, the project was expanded to provide also a more sophisticated analysis of the climatic data and an assessment of the areas suitable for the production of the major crops.

Under previous FAO/UNDP assistance from 1980 to 1982 a national AEZ land resources database system was successfully developed together with trained manpower to operate it. It constitutes the foundation for a full-fledged national and sub-national planning database.

In its present form the AEZ system is generating readily accessible and transferable information on physical land resources for use by decision makers in land and agricultural resources management. However, in order to improve ability and accuracy in dealing with the intricacies of resource planning under the complex Bangladesh environmental conditions the present data base needs constant updating as with time there has been certain changes due to natural and human interventions. The system needs to be updated and enlarged with new data on the socio-economic factors of agricultural production, with map or image processing facilities, and with appropriate production/resources management models.

An agricultural planning information system is, therefore, required, which will be capable of managing large amounts of statistical, spatial and temporal data and generating information products in the form of maps, tabular and textual reports. The technology which can accomplish this is Geographic Information System (GIS) which will enable the resource planner to rapidly produce a combination of maps, tables and text which together show "where" (location of resources), "what" (kind of resources), and prepare present action plans and simulate possible future values and scenarios for planning future sustainable agricultural development. Using the information system realistic agricultural planning on production and rehabilitation programme can be drawn which will be useful for strengthening national food security system.

TAPP PART A PROJECT ID(1) PROJECT NO (2) TAPP DATE REVISED (3)
 TA January, 1994.
 October, 1994

PROJECT TITLE (4) Utilization of Agro-Ecological Zones(AEZ) Data Base
 and Installation of GIS for Agricultural Development.

ADM. MINISTRY/DIVISION (5) Ministry of Agriculture
 Executive Agency (6) Bangladesh Agricultural Research Council under
 Ministry of Agriculture

SECTOR (7) Agriculture
 (Crops)
 NATIONAL PROJECT DIRECTOR (8)
 Member-Director(Soils), BARC.

TAPP PREPARED BY (9) DR. M.A. HAMID HIAH, MEMBER-DIRECTOR(P&E) Tel:328340
 MR. MD. ANWAR IQBAL, PSO(SOILS), BARC.
 DR. A.R. SIDDIQUI, SSO(P&E), BARC.
 MR. MAHBUB AHMED, SR. SYSTEM ANALYST.
 Revised by Dr. M. Nurul Alam, CSO(P&E), BARC.

TAPP PART B PROJECT DATES PLANNED START (10) PLANNED COMPLETION (11)
 January 1994 December 1998

TAPP PART C PROJECT FINANCING DONOR (12): UNDP

LOCAL COST SOURCES (13) FOREIGN EXCHANGE SOURCE (14) CURRENCY RATE(15)
 UNDP/GOB UNDP 1 US \$ = 40.00

PROJECT COST	TOTAL COST (LAKH TK) (16)	F.E.COST (LAKH TK) (17)	TK. COST (LAKH TK) (18)	GOB COST (LAKH TK) (19)	PA (LAKH TK) (20)	PTA (LAKH TK) (21)	COST (22)
1993-94	437.68	227.13	210.55	188.53	249.15		183.03
1994-95	240.84	172.00	68.04	1.00	219.04		
1995-96	167.61	103.23	64.38	1.00	166.61		
1996-97	120.19	73.59	46.60	0.50	119.69		
1997-98	25.56	7.60	17.96	-	25.56		
1998-99	9.00	4.60	4.40	-	9.00		
TOTAL	1000.88	588.15	412.73	191.03	809.85		183.03

FINANCIAL ARRANGEMENTS WITH DONOR (23) NONE DISCUSSED /

NAME/DESIGNATION OF DONOR CONTACT (24): UNDP Resident Representative

FINANCING AFTER COMPLETION OF THE PROJECT FUNDS REQUIRED (25)
 YEAR TV. 16 lakh

MODE OF FINANCING (26)
 DONOR LOAN GRANT GOB APP BUDGET REVENUE BUDGET
☒ ☒

SELF FINANCING (27) Not applicable

2. The Project

The follow up activities of ARZ in the project will include the following major components. They are:

- Manpower development for technology transfer of AEZ data base.
- Use of AEZ data for agricultural research programming and localized production planning.
- Updating of the database and incorporation of Socio economic data in AEZ Land suitability data base.
- Installation of agricultural GIS for AEZ data base.

3. Participatory Development of AEZ/GIS and Information Flow

The National Agricultural Research System (NARS) is pursuing activities to generate new knowledge which can be used at the farm level to derive benefit contributing to the national agricultural development. Technology used to be based on local problems and obviously will be different for varied locations. To make the research information representative and replicable, AEZ data can serve as a powerful tool to guide research direction. Information thus obtained will be applicable and valid for situations with identical agroecological regions.

AEZ data base presently used in the preparation of Thana guide for agricultural production also contains current information on soil chemical parameters. In the process of thana guide preparation and use, research and extension personnel are intimately linked. Further to this, Agricultural Support Service Project (ASSP) of the Department of Agriculture Extension (DAE) much emphasis has been placed on the localized production planning using AEZ data system and thana agricultural production guide. Integrating the AEZ data with the Thana guide, BARS has developed a model for location specific crop production planning taking into account all components of risk and uncertainties of crop production. Validation of the model in a selected Thana has been found to be useful, effective and viable, as has been envisaged in ASSP. The model makes use of all available data base including the data obtained for the location by the extension system on cropping, farmers affordability and need. The model requires the use of computers to create options for the farmers. Under the ASSP, there is provision of computers for the extension department. The present project will install computers at five pilot thanas and other user agencies. Information generated at the local level will be stored, used and transferred to the national level for macro and micro planning purposes. Thus, two-way flow of data and user agencies direct participation in the generation and application of the data base in the planning process will be ensured and will lead to the success of this project.

4. Manpower development

Training is a critical aspect of this project with a major objective being to develop trained manpower in land resource appraisal and AEZ/GIS computer use in order to reduce dependency on foreign aid and foreign consultants. The training proposed, targets core BARS personnel subject matter specialists from participating research agencies and user groups consisting of researchers at the planning level and personnel of planning/implementing

cells at national, district and thana levels. The development of human resources, both of the research and the implementors is vital for the sustainability and continued development of the project programmes. Emphasis is placed on both foreign, and in-country training which will be coordinated by BARC through the Bangladesh Agro-Ecological Network. The AER network formed through a notification of the MOA, and involves all user agencies including the participation of the academic institutions. Trainers will be drawn from existing PARC personnel, resource persons from participating agencies, national consultants and international experts, the latter being provided during the first three years of the project's life. In addition, a series of overseas training and study tours are provided to strengthen the capabilities of core personnel. Through rigorous human resource development programme a trained team will be formed who ultimately will take the responsibility of continuing activities of the project from year 1. During the project period backstopping support from FAO and other suitable regional agencies will be maintained. During these years efforts will be made to link the system to similar regional networks.

Overseas Training

Three 12 month higher training on GIS application, land resources, land assessment/ management are provided. It is envisaged that these will take the form of post-graduate studies on integrated land resource management and development which include the use of GIS applications. Since the core BARC personnel will be responsible for the continuity of the project activities, participation in these 3 one year trainings will be from BARC.

Four 6-month training are provided on GIS methodology and application. It is recommended that one of the four persons to be trained should be selected from a NARS participating agency in order to facilitate data exchange. Of the three persons selected from BARC at least one should receive training in UNIX and "C" programming languages. A possible venue is the Asian Institute of Technology, Thailand.

Study tours

Three 1 month study tours are provided for senior officials of BARC and NARS/user agencies with decision making responsibilities in order to expose them to the experience of other countries on the use of GIS in land resource management and agricultural development planning. It is suggested that study tours should be in China, Thailand, Malaysia or where GIS is being used extensively.

Trainees for all the areas mentioned will be nominated by the concerned institutes and selected by BARC.

In-country training

Although in-service training will be a continuous activity conducted by national and international project staff a series of formal training courses will be conducted by the project throughout its duration.

This training will be provided to relevant scientists of the NARS/user institutions which are seen as a key element for the dissemination of AER knowledge and data.

Four 2 month training courses for senior level scientists from participating research agencies will be held annually for the first 3 years of the project's life. These courses will concentrate on training in AEZ methodology and application inclusive of inputs to environmental impact assessment and disaster preparedness with hands on computer experience.

Each course will cater for up to 20 trainees. As the GIS system comes on-line training will be broadened to encompass the interactive use of AEZ and GIS.

A series of three types of 2 week short training courses will be held yearly for AEZ/GIS user groups throughout the project's life. Each course will cater for up to 15 trainees.

The first type of short course will encompass the training of field operators and research workers at planning levels. Training will concentrate on the use of AEZ methodology to appraise agro-ecological constraints to crop production and diversification and will include instruction in field verification of such appraisals.

The second type of short course will involve trainees from participating planning agencies and will focus on the use of the AEZ database and GIS applications for assessment of different cropping systems.

The third type of short course will involve trainees from national, district and thana planning departments and will focus on the use of AEZ and GIS in developing optimal land use plans.

A short duration workshop with high level participation of decision-makers from all participating agencies within the framework of the Bangladesh Agro-Ecological Network will be held in conjunction with the above training courses with a view to sensitizing them to the project and defining and maintaining their respective roles.

To the extent possible, use will be made of local computer expertise and facilities to provide initial computer literacy training.

UNDP inputs to support the in-country training will be provided in accordance with the relevant UNDP guidelines.

5. Updating and Incorporation of Socio-economic Data

The AEZ system needs to be updated and enlarged with data on the socio-economic factors of agricultural production with map or image data and with additional appropriate models to allow for greater ability and accuracy in resource planning for agricultural development. Use of it will be limited and ineffective if farmers' socio-economic situation is not considered. A local consultant (Socio-Economist) will work for the first three years of the project period to (i) prepare data base in the computer for Socio-economic factors and (ii) develop a methodology for incorporating this database into the GIS database. He will run pilot tests in the field for the Socio-economic parameters developed for each land utilization type. Rules on the socio-economic requirement for each crop will be worked out for land suitability assessment.

6. GIS

Utilizing the computerized GIS database the project will develop a methodology and related procedures to assist agricultural production planning at the national, district and thana levels by working out generation for optimal allocation of land and other resources for various land uses which will simultaneously meet self-sufficiency targets and maximize economic return the agricultural production possibilities and the input availability constraints of the country. The methodology and procedures developed will meet present and future needs for land use planning analysis and regulation supporting capacity assessments at national, district and thana levels. The methodology and procedures will, to the extent possible, be fitted on existing computer modelling software, including the present AEZ software package.

The GIS component of the project will enlarge the existing AEZ system to establish a full fledged agricultural land information system with the following main components:

- Computer hardware
- Sets of software
- Database
- Trained personnel and organizational framework
- Methodology and procedures for input to agricultural planning

6.1 Computer Hardware

Although use will be made of the existing computer hardware within RADC Computer Centre these facilities will need to be expanded. Hardware components of a GIS include several which are common to any computerized management system, such as a central processing unit (CPU), a disk drive storage unit for storing data and programmes, a tape or similar drive used to store additional data, a visual display unit, and other general purpose computer peripherals such as printers.

In addition a GIS has several specialized hardware components. These include a digitizer and/or scanner used to convert the geographical information from maps into digital form for computer storage; a plotter, which prints out maps and other graphic outputs from the system; and a visual colour graphics display unit (monitor) on which spatial data plotting and editing can be performed by the user.

In order to make optimal use of existing hardware and determine an appropriate hardware configuration suitable for prevailing Bangladesh conditions and availability of service, maintenance support and training activities, preparatory assistance in the form of a Systems Analyst/GIS Specialist will be required to determine hardware specifications and needs.

6.2. State of Software

Main GIS software components are designed to perform the following functions:

- data input (digitization);
- data storage and database management;
- data analysis and processing;
- data output and presentation (plotting/printing)

User interaction with both software and hardware is essential to the success of any GIS system. The information needs of the users and the information data bases required to meet these needs must be known and understood in order to identify hardware and software needed to produce the desired results. A first step, therefore, is to survey the potential users to determine their information needs, and to identify those needs that can be best met by expanding the existing AEZ system into a full fledged GIS, incorporating various combinations of data retrieval and transformation. Consequently preparatory assistance of a Land Resources Consultant (local). Specialist will be required to identify suitable hardware, software and inputs for land resources and socio-economic variables.

7. Donor inputs

It is expected that the project will be financed by UNDP. The assistance will cover the following items:

1. GIS/Computer Information Systems Specialist (International) - 36 person months
2. Agro-climatology Specialist (International) - 6 person months
3. Expert Systems Specialist (International) - 6 person months
4. GIS Specialist (International) - 2 person months
5. Unspecified consultants (International) - 3 person months (details to be worked out during the preparation of Workplan by BARC in consultation with the international consultants). This input will primarily be used to support consultants from the region for linking the system to regional networks.
6. Land Resources Specialist (local) - 36 person months.
7. Socio-economic Specialist (local) - 36 person months
8. Systems Analyst/Programmer (local) - 36 person months
9. Agroclimatology Specialist (local) - 12 person months
10. Agronomist/Farming Systems Specialist (local) - 24 person months (As per decision of the meeting held in Planning Commission on 08.05.93 and the meeting held at BARC on 29.07.93 number, duration and salary of consultants have been re-fixed, which contributed to increase in project costs).

11. GIS Hardware, Software and accessories
12. Computer facilities and services
13. Vehicles and maintenance
14. Training equipment and supplies
15. Training allowances and remuneration for the resource persons (in accordance with the relevant UNDP Guidelines)/NARS rules.
16. Expenditures for arranging training workshops, seminars, etc.
17. Foreign training and study tours for the BARC officials and from NARS/user agencies on Land resources and GIS.
 - Higher training on Land Resources GIS application -3 (12 manmonths each),
 - Training on GIS- 4 (6 manmonths each, Land Resources and GIS)
 - Study tours - 3 (1 manmonth each)
18. Backstopping by technical agency.

8. Execution and implementation arrangements

The project will be financed by UNDP. The Bangladesh Agricultural Research Council (BARC) will act as Executing Agency. Food and Agriculture Organisation of the United Nations (FAO) will provide technical and other necessary assistance under a cooperating agency agreement with BARC, cost of which will be covered through donor's inputs.

In implementing the project components, existing facilities of NARS institutions (e.g. BARI, BRRI, IGER, SPARSO etc.) will be used for increasing project effectiveness. In order to ensure appropriate utilization of project facilities and resources by the participating institutions particularly the institutions under MOA, a project Implementation and Coordination Committee may be formed. This committee will decide on distribution of facilities, equipment and resources to NARS institutes.

Project operations will be carried out under the overall direction of the BARC Member-Director (Sd/1st) who will be assigned as the National Project Director. The project document to be signed between the donor and the Government will contain a detailed job description for the National Project Director as shown below:

National Project Director

Starting date: January 1994

Duration : 60 months

Duty station: Dhaka

Duties: The National Project Director will be the executive head of the project and will spend 15% of his time for the project activities. He will supervise all project activities and of the project staff (foreign and local). In consultation and Coordination with BARC and the AEZ network and in close cooperation with the national and international consultants the incumbent will:

- prepare an inception Report which will include the detailed project work plan;
- administer the implementation of project activities and funds;
- coordinate the administrative and operational activities;
- direct the formulation and development of land information applications, the validation of results and the dissemination of products;
- Implementation of training programmes, workshops and study tours within the framework of BARC management;
- coordinate AEZ/GIS network activities and promote the flow of information within the network;
- supervise and ensure the technical and other reporting of the consultants;
- prepare the progress reports, the project performance monitoring reports and the project terminal report for clearance by FAO and present in appropriate forum/authority.

The NPD will be authorized by the Government to manage the project and will be held responsible for the use of inputs provided under the project and ensure the achievement of project objectives.

At present there are 11 posts available to the BARC Computer Centre:

- 1 Director;
- 2 Senior systems analysts;
- 2 Programmer/analysts;
- 2 Senior Operators;
- 4 keypunch operators.

The Director, Senior Systems Analysts, Programmer/Analyst will act as counterpart either individually or jointly to the expatriate GIS/Computer Information Specialist, Expert system Specialist and to the local consultant on Agroclimatology, Computer System Analyst, Core scientists of Soils and AERS Divisions. BARC will be involved with the local and foreign Specialists.

Apart from the core counterparts, most other staff of computer centre will spend at least part of their time on the project activities. At present the maintenance and applications development takes up about 30% of activity time. This existing 30% work load will be subsumed into the project with all ARE activities being supported by the new group.

In addition to the above core staff, trainees from other participating agencies will be released by their parent administrations for the duration of training courses conducted by the project under arrangements to be made by BARC through the Bangladesh Agro-Ecological Network.

Office accommodation facilities and supplies

The BARC will provide adequate computer space from the existing Computer Centre area, as follows:

	No.	Unit area (m ²)	Total area (m ²)
- GIS work station	2	4	8
- Delivery development/ digitizer work station	2	5	10
- X-Y Plotter	1	2	2
- Storage area (map cabinets, etc.)	1	3	3
- Computer staff offices (for 4 persons)			12
Total Area			55 m ² (592 sq. ft)

The area allocated for training rooms in the new BARC Computer Centre should be adequate to meet the needs of the ARE/GIS training.

The BARC will provide 2 rooms for office space for the long term international and national consultants. The short term international specialists, administrative support personnel, and national consultants will use the existing computer work station & staff office.

Additional furnitures and office Telephones (NWD) will be required for the project consultants. The Telephones will be used for arranging training programmes and to maintain liaison with the participating institutions in Bangladesh NARS. At present BARC has no fund to support these costs. So, the cost of furnitures (Tk. 4.00 lakh) and 2 NWD telephones installation and operations (Tk. 4.00 lakh) will be borne out of GOB contribution of this TAPP. Accordingly, the GOB cost for the project has been increased from Tk. 183.03 lakh (CDST) to Tk. 191.03 lakh to include cost of furniture and telephones (see Item No. 52). This has been done in consultation with MOA.

Equipment

A list of equipment is given in part F-2 (Item 45). In procurement of equipment duplication (of existing equipment) will be avoided.

The government will pay CDST for equipment imported for the project.

This TAPP was discussed in the SPEC meeting held on 17.04.1993. TAPP has been recast according to the decisions of the SPEC and follow up meetings (for details see Annexure I).

The recast TAPP was again placed in the SPEC meeting held on 17.5.94. The decisions of the SPEC meeting (17.5.94) and the actions taken there on are given in Annex II. One of the decisions (No. "GA") is that the local/foreign consultants should be provided with salary and allowances in accordance with the GOB rules and procedures. As regards GOB rules the Planning Commission provided BARC with a circular (No. ERD/IA-2/A-1/90/G04 dt. 3.11.92) on the determination of fee/remuneration of local Consultant/Advisor, which is contained in the ERD Guideline, October 1992. This circular states that the fee/remuneration of Local Consultant/Advisor shall not fall below 25% of the fee/remuneration of the international/expatriate consultant/advisor.

It may be mentioned here that in the TAPP the cost/month of the Expatriate consultants ranges between Tk. 4.94 and 5.73 lakh. This cost includes fee/remuneration, air travel and home leave expenses, children education allowances, health insurance/medical allowance, agency contribution of provident fund etc. In order to determine the fee/remuneration of the local consultant BARC requested FAG/UNDP to provide with the break-down of expatriate consultants' per month cost into fee/remuneration, air travel and home leave expenses, education/medical allowances etc. However, after repeated requests (31 July 1994 and 14 August 1994) UNDP responded on 21 August 1994 giving the following points:

(i) "National consultants in all UNDP projects are paid according to an agreed common salary scale which was forwarded to the ERD under cover of UNDP's 13 June 1993 letter. Until further changes are made, UNDP will continue to be guided by these salary scales". UNDP salary scales for Consultants/Experts (employed for more than 3 months period) ranges between Tk. 25,000 and Tk. 60,000 per month.

(ii) Regarding GOB's rules and procedures vis-a-vis the UNDP's salary scales for National Consultants, the UNDP letter referred to the GOB's TA Guidelines of May 1992. The letter states that "the introduction to these guidelines clearly states that in the case of nonconformity of the guideline provisions with those of the development partner, the latter's procedure will take precedence. This is in our view, adequately validates the use of UNDP rates for national consultants under any UNDP funded project".

In view of the above points and clarification given by UNDP on one hand, and the SPEC decision (No. "GA") of 17.5.94 on the other hand, confusion still remains regarding determination of Local Consultants' fee/remuneration. In an effort to remove the confusions the Ministry of Agriculture called a joint meeting with UNDP on 5.10.94. In the meeting it was observed that the cost of expatriate consultants' fee/remuneration, in addition to salary, includes air travel, annual home leave expenses, children education and medical allowances etc. In view of this the per month man/month cost provision of Tk. 50,000 for local consultants, as shown in the TAPP, may be considered acceptable for this TA project (with reference to the preface of the GOB TA Guidelines of May 1992 and the UNDP salary guidelines of 13.6.93). As regards the appointment of both local and foreign consultants/Experts, this will be done as per GOB rules and UNDP's Guidelines.

In conformity with the decisions of the SPEC meeting held on 17.5.94 and the follow-up meeting in MOA (held on 5.10.94) the TAPP has been recast and submitted for approval.

Main objective of the project is to transfer the results obtained by the Land Resources Appraisal Project (agro-ecological resources) to agricultural research, extension and development planners and scientists at national, regional, district and thana levels. Objectives may be specified as follows:

- a. To develop Manpower on land resources and computer use.
- b. To establish a GIS based computerized land information system.
- c. To utilize the AEZ data base through the use of GIS for crop production, crop diversification and disaster preparedness programme planning.
- d. To strengthen efforts of the agricultural extension services to develop location specific technology packages through the establishment of an effective interface with the users.
- e. To prepare optimal scenarios for land use planning at national, district and thana levels.
- f. To update data on land resources.
- g. To validate the data base of AEZ by field verification.
- h. To incorporate Socio economic factors in AEZ land suitability data base.

CONSEQUENCES IF NOT APPROVED (30)

If the agricultural planners, researchers and extension workers are not properly trained to utilize the vast wealth of agro-ecological resources (AEZ) data base, then the following situation will arise.

Unscientific and uneconomic land utilization will continue until AEZ data base utilization is brought into task. The exploitation of the countries natural resources will limit development of balanced conservative strategy and land productivity in near future. Production planners shall have to plan without knowing the physical situation of the area. Research scientists will prioritize their programme without the knowledge of the agro-ecological constraints of the country. A national planning of agricultural development programmes will not be effective unless agro-ecological resources of the country is fully evaluated and considered.

Besides, the absence of Socio-economic data will limit the use of land suitability assessment of AEZ by the farmers. Participation of women will be given importance while technologies generated through FSR approach will be taken into account in collection and collation of socio-economic data.

If the present AEZ system is not expanded into a full-fledged GIS it will not be possible to input and process geographical data or generate output in the form of maps on demand which combine user specific spatial data combinations. This will restrict the scope of development planners, agricultural scientists and extensionists. Under the AEZ system it is possible to show what kind of physical resources exist in the country and prepare

present action plans based on physical parameters. By expanding it to a GIS system it will be possible to combine physical and socio-economic parameters, show what and where resources are, update both attribute and geographical data, prepare present action plans and simulate possible future values and scenarios for planning future sustainable development quickly.

LINKAGE TO OTHER PROJECTS/ORGANIZATIONS (31)

The project will have bearing (input, output, or both) on most agricultural programmes and projects. The project will have direct linkage with the Bangladesh Agroecological Network, which will build up programmes, have a monitoring role and coordinate and formulate the follow-up activities on GIS. In addition important linkages are envisaged with national remote sensing data and environmental data collected by various agencies in the country. In this connection, the network members and the participating organizations as agreed since initiation shall have to extend full cooperation and support.

Outputs of the project will be made accessible to and be used and supplemented by ASSP (IDA/ODA), NMIDP (IDA/EBC), BGD/07/025 Horticulture Research and Development (ASDB/UNDP), BGD/09/045 TCTT (UNDP/FAC), BGD/93/006 - IPM (UNDP), FAP studies and other projects dealing with environmental and disaster management.

GIS utilising AEZ database will also be used by the national research institutes such BARI, BRRI, SRDI, BJRI, SRTI, BTRI, BERI, FRI, DEPI, HINA, BAU, DU, SPARRSO and others. Effective linkages with FAP 19, and GIS under IGED and others will also be established.

TAPP PART E PROJECT OUTPUT (IN QUANTITATIVE OR QUALITATIVE TERMS) (32)

Preparatory Assistance

One GIS Specialist (foreign) will be required for two months prior to the actual start of the project to prepare and recommend the requirements on GIS hardware, software and other concerned inputs details. Requirement must be compatible to other systems available in the country and should be worked out with long-term requirement of the organization/country in mind.

Technology Transfer

The project will enable training of a core group of professional to operate the GIS and use its outputs through external and in-country training. On-job training and work of the consultants/experts with their counterparts will ensure transfer of technology.

Training

Both long and short term training will be organized for the local scientists and other users.

Management Improvement

Since the project will be under National Execution, development of administrative and management capabilities for handling TA project will be ensured through training to be organised by UNDP.

Institutional Support

The agricultural research institutes and extension department will get support in manpower development both on land resources and computer services.

ACTION EXPECTED AFTER COMPLETION OF THE PROJECT (33)

The agricultural research institutes, extension department, AEZ network and other users, BAU, DU and other participating nation building Ministries/departments will continuously use data base of AEZ and GIS for their own programmes and simultaneously will provide inputs for updating of the data base as and when it will be required. Payment system where applicable to be followed in data transfer.

PART F-1		PROJECT INPUT PERSONNEL	
EXPATRIATE CONSULTANTS (34)	PERSON MONTHS	NO OF CONSULTANTS	COST/MONTH (LAKH TK.)
GIS/Computer Information System Specialist	36	1	4.94
Agro-climatology Specialist	6	1	5.73
Expert System Specialist	6	1	5.73
GIS Specialist	2	1	5.73
Unspecified Specialist (TCDC programming)	3		2.96

(As per decision of the meeting held in Planning Commission on 08.05.93 and the meeting held at BARC on 29.07.93 number, duration and salary of consultants have been refixed, which contributed to increase in project costs.)

TASKS AND QUALIFICATION REQUIRED (35)

(a) GIS/Computer Information Systems Specialist

Starting Date: January 1994.

Duration : 36 months.

Duties: Will be the Team Leader of FAO experts assigned to the project as principal technical counterpart to the National Project Director. The incumbent will:

assist the NPD and prepare a detailed work plan for the project inclusive of detailed terms of reference and schedule for short term consultants.

advise the NPD and supervise the installation, testing and interactive operation of AEZ/GIS hardware and software;

- develop GIS applications and coordinate the development of AEZ/GIS computer models and applications;

- assist in the selection of trainees and venues for overseas training and study tours and arrangements for such;

- assist in the design and execution of the in-country training programmes;

- assist in the preparation of comprehensive AEZ/GIS training materials and manuals;

- coordinate activities of other FAO experts to the projects

- assist the NPD in selecting and appointing national consultants, trainees under the project.

- assist the NPD in preparing project performance reports as required;

- assist the NPD in preparing an interim report for submission to the project evaluation mission.

Qualifications: The incumbent should have a relevant post graduate degree with strong background of incorporating remotely sensed data into GIS as well as a good GIS knowledge and programmer/analyst skills; minimum 10 years experience with land resources databases and applications is also required. Persons with only general knowledge of GIS are not suitable for this post.

(b) Agro-climatology Specialist

Starting Date: July 1994.

Duration : 6 months

Duties: Under the supervision of the National Project Director and under the guidance of GIS/Information Specialist and in close cooperation with the National Land Resources Consultant, other international and national consultants, and relevant staff of BARC and participating research agencies, the incumbent will:

- arrange collection and collation of data on agroclimatology.

- assist, advise and update of AEZ climatological and hydrological database;

- assist and advise on the development and testing of agro-climatological parameters in AEZ/GIS computer models and applications to meet present and future needs for land use planning and population supporting capacity assessments, environmental impact assessment, disaster preparedness.

- assessment of agro-climatological constraints to crop production and diversification;

- assist and advise on the design of the in-country training programme in the preparation of training material and manuals; and work as research person.

prepare a terminal consultancy report.

Qualifications: The incumbent should have a post graduate degree in agro-climatology or the equivalent; at least 10 years experience in agro-climatic aspects of tropical agricultural R&D and practical experience with computerized land resources database and applications.

(c) Expert Systems Specialist

Starting Date: July 1994.

Duration : 6 month (divided into two missions).

Duties: Under the overall guidance of the NPD and under the guidance of GIS/Information Specialist and under the direct supervision of the GIS/Computer Information Systems Specialist and in close cooperation with NDP National Systems Analyst/Programmer, other International Consultants, and BARC Computer Centre staff, the incumbent will:

- assist and advise in the development and testing of an expert system with customized user interface to permit dynamic updating of both the data and knowledge base used in the AEZ/GIS configuration. The expert system developed should also provide a means of explaining the advice given and/ for assessment generated. Risks in Bangladesh agriculture should get priority in the system development.
- validation of the suggested system(s).
- assist and advise on the design of the in-country training programmes and the preparation of training materials and manuals and work as trainer.

prepare a terminal consultancy report.

Qualifications: The incumbent should have a post graduate degree in computer sciences or the equivalent; at least 5 years experience in the development of computerized expert systems in general and user interfaces in particular; and be familiar with land resource applications of GIS and expert systems. Should have degree/vast experience in agro-climatic aspects of tropical agricultural R&D and in the assessment of climatological constraints and their incorporation in computer models.

(d) GIS Specialist

Starting Date: November 1993 (immediately after project approval)

Duration : 2 months

Duties: Under the supervision of the National Project Director and in close cooperation with the relevant counterpart staff under the project and participating agencies of the Bangladesh Agro ecological Network, the incumbent will do the job as detailed in page 11 under preparatory assistance.

Qualifications: The person in mind should have a post-graduate degree in computer science, very good command on computer hardware and software requirements. The incumbent should have a sound background of incorporating land resources and remotely sensed data into GIS as well

as a good GIS knowledge and programmer/analyst skills. Should have minimum 10 years experience in this profession. Persons with only general knowledge of GIS are not at all suitable for this post.

(e) Unspecified consultants (International) - 3 person months (details to be worked out during the preparation of Workplan by BARC in consultation with the international consultants). This input will primarily be used to support consultants from the region for linking the system to regional network.

LOCAL CONSULTANTS (36) PERSON MONTHS NO. OF CONSULTANTS COST/MONTH (LAKH ₹)

Land Resources Specialist	36	1	0.50
Socio-economic Specialist	36	1	0.50
System Analyst/Programmer	36	1	0.50
Agro-climatology Specialist	12	1	0.50
Agronomist/Farming System Specialist	24	1	0.50

As per decision of meeting held in Planning Commission on 08.05.93 and meeting held at BARC on 29.07.93 the number and duration of consultants have been fixed.

TASK AND QUALIFICATION REQUIRED (37)

(a) Land Resources Specialist

Starting Date: January 1994

Duration : 36 months.

Duties: Under the direct supervision of the National Project Director and in close cooperation with the BARC counterpart, GIS/Computer Information System Specialist, other National and International Consultants, and relevant staff of BARC and participating agencies, the incumbent will:

- assist in developing manpower in agricultural research, planning and extension departments for the utilization of the land resources inventory and land suitability database of AEZ;

- conduct training course for technology transfer of the AEZ database;

- update the database of the land resources inventory;

- conduct sample ground truthing for land suitability assessment;

- carry out pilot tests for the socio-economic, climatological parameters developed for the land utilization types;

provide location specific information with data and maps for the agricultural development programme through GIS.

Qualifications: M.Sc/M.Sc. (Ag.) in soil science/agril. related subject with at least 10 years experience in soil classification, land evaluation/management etc. or Ph. D./M.S. in a relevant subject with at least 7 years experience. Preference would be given to a person with experience in preparing AEZ models for the land resource appraisal of Bangladesh and for utilization of AEZ data base for agricultural development.

(b) Socio-Economic Specialist

Starting Date: July 1994

Duration : 36 months

Duties: Under the direct supervision of the National Project Director and in close cooperation with the BARC counterpart, GIS/Computer Information System Specialist, other National and International Consultants, and relevant staff of BARC and participation agencies, the incumbent will:

- collect existing socio-economic data, generate data for the country, check and refine them;
- gender issue and ESR data should be considered and integrated;
- prepare data sets required for incorporation with the AEZ database and GIS;
- integrate socio-economic factors with AEZ land suitability assessment models for GIS based land information system development;
- carry out sample ground truthing on land suitability assessment updated by incorporating socio economic parameters.

Qualifications: M.Sc.(Ag.)/ M.Sc. in agricultural economics/Economics/Rural Sociology with at least 10 years experience or Ph.D. in Economics Agricultural economics/Rural Sociology or M.S. With 7 years experience in agricultural economic research and related activities. Preference will be given to a person specialized socio-economic factors leading to model development for land suitability assessment. Persons with experience in dealing with gender in development issues will be given preference.

(c) System Analyst/Programmer

Starting Date: January 1994.

Duration : 36 months.

Duties: Under the direct supervision of the National Project Director and in close cooperation with the GIS/Computer Information System Specialist, the international Expert Systems Specialist, other National and International Consultants, and staff of the BARC Computer Centre, the incumbent will:

- develop, test and refine an AEZ/GIS expert system with customized user interface to permit dynamic updating of both the data and knowledge base used in the AEZ/GIS configuration. The expert system developed should

also provide a means of explaining the advice given and /or assessments generated;

develop and conduct hands on computer training in the use of the expert system and component AEZ/GIS models and applications, database management and updating;

prepare comprehensive training materials and manuals and work as trainer.

Qualifications: M.S./M.Sc. in computer sciences or the equivalent with at least 10 years experience in computer programming and analysis. Preference will be given to a person with some experience in the development of computerized expert systems in general and user interfaces in particular with familiarity in land resource applications of GIS and expert systems.

(d) Agro-climatology Specialist

Starting Date: July 1994.

Duration : 12 months

Duties: Under the supervision of the National Project Director and in close cooperation with the international Agro-climatology expert, the National Land Resources Consultant, other international and national Consultants, and relevant staff of BARC and participating research agencies, the incumbent will:

- collect and compile the necessary information for updating of AEZ climatological and hydrological databases;
- assist in the development and testing of agro-climatological parameters in AEZ/GIS computer models and applications to meet present and future needs for land use planning and population supporting capacity assessments, environmental impact assessment, disaster preparedness, and
- collect information for assessment of agro-climatological constraints to crop production and diversification;
- assist in the design of the in-country training programmes and the preparation of training material and manuals;
- prepare a terminal consultancy report.

Qualifications: The incumbent should have M.S /M.Sc in Science Subject/ Meteorology, a post graduate degree/diploma /training in agro-climatology or the equivalent; at least 8 years experience in agro climatic aspects (15 years in meteorology) of tropical agricultural R&D and practical experience with computerized land resources database and applications.

(e) Agronomist/Farming Systems Specialist

Starting Date: July 1994.

Duration : 24 months.

Duties: Under the supervision of the National Project Director and in close collaboration with the counterpart from BARC, the National and international Consultants and relevant staff of BARC and participating research and planning agencies, the incumbent will:

assist and advise in the development and testing validation of crop and land utilization type parameters in AEZ/GIS computer models and applications, to meet present and future needs for land use planning and population supporting capacity assessment, environmental impact assessment, disaster preparedness, and assessments of crop production and diversification prospects;

collect FSR information on all components of farms e.g. crop, livestock, fisheries, etc., in line of AEZ database, generate information and arrange to include in the computer model;

assist and advise on the design of the in-country training programme and the preparation of training materials and manuals and work as trainer.

prepare a terminal consultancy report.

Qualifications: Ph.D. or M.S. in agronomy/agricultural science with 10 years experience. The incumbent should have a post graduate degree or the equivalent with at least 12 years experience in tropical agriculture, farming systems, PAB; and practical experience with computerized crop requirement databases will be preferred.

PROJECT PERSONNEL GOB. (30)	MONTHS	NO. OF PERSONNEL	COST/MONTHS (LAKE TK.)
Nil			

NO. OF STAFF AVAILABLE (39)	NO. OF STAFF AVAILABLE (40)	NO. OF STAFF (41)
FULL-TIME	PART TIME	TO BE RECRUITED
Nil	Nil	6

TASK AND QUALIFICATION REQUIRED (42)

PROJECT PERSONNEL OTHERS (43)	MONTHS	NO. OF PERSONNEL	COST/MONTH (LAKE TK.)
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Administrative Assistant	60	1	0.15
Secretary-Cum-Word-Processor	96	2	0.12
Driver	132	3	0.06

ESTIMATED (44)	EXPATRIATE	LOCAL	PROJECT	PROJECT PERSONNEL
PERSONNEL COST	CONSULTANTS	CONSULTANTS	PERSONNEL GOB	OTHERS
1993-94	41.10	6.00	-	3.42
1994-95	131.00	30.00	-	6.84
1995-96	62.24	24.00	-	6.84
1996-97	32.60	12.00	-	5.40
1997-98	-	-	-	1.96
1998-99	-	-	-	1.98
GRAND TOTAL	266.94	72.00	-	28.44

SPECIFICATION OF ITEMS (45)

Item ¹	LC	1994-95 FC	Total
- File server: (1) (100mb., 1 30mb. secondary operator console	20.00	20.00	40.00
- 250 cps character printer (1)	0.00	2.00	2.00
- Advanced GIS workstation (2) 512 X 512 X 24 bit display with additional overlay planes, mouse, keyboard input, own hard disk)	20.00	20.00	40.00
- Delivery development/ digitizer system, Micro computer, own hard disk (SVGA color 14" display standard mouse interface, 1.4mb. floppy disk.	2.00	2.00	4.00
- Micro computer based GIS (10) workstations for users: Micro computer, own hard disk (SVGA color standard high res. monitor 14", keyboard, mouse interface, 1.4 mb. floppy disk colour inkjet plotter, A3 digitizer.	34.20	34.20	68.40
- A0 6 pen plotter (1)	3.20	3.20	6.40
- A0 digitizer tablet (1) (may substitute scanner or optical system)	4.00	4.00	8.00
- A3 colour plotter (1)	2.00	2.00	4.00
- Network hardware interface cards (5)	2.00	2.00	4.00
cables (sets) (5)	0.20	0.20	0.40
- Operating systems: Unix (including C') (network) (1)	4.00	4.00	8.00
MS DOS (21)	0.59	0.59	1.18
Network (8 users) (1) (includes gateway to existing system)	0.80	0.80	1.60
- GIS: Unix work station (2)	16.00	16.00	32.00
micro computers (21)	0.84	0.84	1.68
- Language development Fortran: Unix work station (2)	8.00	8.00	16.00
MS DOS (2)	0.80	0.80	1.60
- Database management system: UNIX (2)	12.00	12.00	24.00
MS DOS (21)	8.40	8.40	16.80

¹ Updated specification will be provided by the GIS Specialist.

Item(Equipment Contd.)		1994-95		Total
		LC	EC	
- Utility software		4.00	4.00	8.00
- Overhead projector	(1)	0.24	0.24	0.48
- Screen	(1)	0.04	0.04	0.08
- Slide projector with lens, spares, remote control, carry case	(1)	0.46	0.46	0.92
- Colour TV, (21")	(1)	0.30	0.30	0.60
- Video recorder	(1)	0.20	0.20	0.56
- 35 mm camera with wide & zoom lens	(1)	0.47	0.47	0.94
- Tripod with case	(1)	0.07	0.07	0.14
- Airconditioner (18,000 BTU)	(3)	2.00	2.00	4.00
- 4wd vehicle*	(2)	18.00	18.00	36.00
- UPS for micro computers 800va	(19)	5.20	5.20	10.40
- UPS for GIS network 5kva	(1)	4.00	4.00	8.00
- Epidiascope	(1)	1.76	1.76	3.52
- Data show system	(1)	1.18	1.18	2.36
- Map storage cabinets	(5)	4.00	4.00	8.00
TOTAL		183.01**	183.01	366.06

* One vehicle, will be placed by UNDP, Dhaka under this project for full time use and for the entire duration of the project.

** CDST/CDVAT (100% of equipment cost), will be paid by GOB. All vehicles and equipment will be purchased in 1994-95.

ANNUAL PHASING OF ESTIMATED COSTS (46)

(Tk. in lakh)

	LC	EC	Total
1994-95	183.03	183.03	366.06

Equipment will be procured in 1994-95.

TAPP PART F-3

PROJECT INPUT TRAINING

SPECIFICATION (47) INSTITUTION (48) NO. OF PARTICIPANTS (49) COST (50)
(TK. LAKH)

Local:

1. AEZ/GIS Training
courses

HARS

as narrated

40.00*

Foreign:

1. Training on Land
Resources (12mx3)

HARS

3

47.92**

2. Training on GIS (6mx4)

HARS

4

37.02**

3. Study Tours

(1mx3)

BARC/AEZ

users

3

15.24**

Total

140.18**

ANNUAL PHASING OF THE ESTIMATED COST (51) Tk. in lakh

1993-94

1994-95

1995-96

1996-97

LC	FC	TOTAL	LC	FC	TOTAL	LC	FC	TOTAL	LC	FC	TOTAL
-	-	-	10.00	33.40	43.40	10.00	33.39	43.39	10.00	33.19	43.19

1997-98

1998-99

TOTAL

LC	FC	TOTAL	LC	FC	TOTAL	LC	FC	TOTAL
10.00	-	10.00	-	-	-	40.00	100.18	140.18

* In local currency

** In foreign exchange

SPECIFICATION (52) AND
ANNUAL PHASING OF ESTIMATED COSTS (53)

Tk. in lakh

Input	1993-94	94-95	95-96	96-97	97-98	98-99	Total
Computer Consumable	2.00	2.00	2.50	2.50	1.00		10.00
Office supplies	1.00	1.50	1.50	1.00			5.00
Maps	0.80	-	-	-	-	-	0.80
O&M of Equipment and Vehicles	2.20	2.50	2.50	2.90	-	-	9.20
O&M of Computer	4.00	7.00	7.00	6.00	-	-	24.00
Reporting cost		-	1.04	-	-	1.02	2.06
Sundries and Honorarium, Allowances for NFD.	0.80	2.00	2.00	1.20	1.00	0.50	7.50
Furniture (GOB)	4.00	-	-	-	-	-	4.00
Telephone installation and operation (2 nos) (GOB)	1.50	1.00	1.00	0.50	-	-	4.00
Local digitizing contract		4.00	4.00	4.00	-	-	12.00
Internal Travel [*]	1.80	2.00	2.00	2.00	2.00		9.80
Mission cost ^{**}	3.00	7.60	7.60	7.60	7.60	4.60	38.00
Total	21.10	29.60	31.14	26.80	11.60	7.02	127.26
LC	18.10	22.00	23.54	19.20	4.00	2.42	89.26
FC	3.00	7.60	7.60	7.60	7.60	4.60	38.00

* includes TA & DA of personnel paid from project for internal travel &
field verification studies

** in foreign exchange

PROVISION IN FIVE YEAR PLAN (51)

Will be provided from the
Block Allocation

PROVISION IN ADP/ATAP (53)

Yes, Included In the ADP/ATAP

NO. OF ENCLOSURES Two (2)

M. Hossain
26/10/94
SIGNATURE OF
RECOMMENDING AUTHORITY

Md. Enayet Hossain
Joint Chief
Ministry of Agriculture
Government of Bangladesh

Agar

06/06/20 કેર ડાહિયે વહિવટાયા કમિયને અનુકિત
મજાદ પિપ્પાનાયવી ઓ પ્રીત વપલવા.

ਪ੍ਰਿਯਤਮਾ

॥१॥ अथ

- [illegible]

১৭/৫/৯৪ ইং তারিখে অনুষ্ঠিত বিশেষ বক্তৃতা
 প্রোগ্রাম কথিটি (এম, সি, ই, সি) সিদ্দান্তা বর্মা ও
 প্রবীণ বন্দ্যোপাধ্যায়।

ସିନ୍ଦୁାସୁାବଳୀ

가 나 다 라 마

- [illegible]

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিকল্পনা কমিশন
কৃষি বিভাগ
(কম্পন উইং)

নং-সক/কৃষি-১০৩/টি এমি/১১/

তারিখ : ০২-০১-১০ ইং
১১-০১-১৪০১ বাং

বিজ্ঞপ্তি

নিম্ন স্বাক্ষরকারী নির্দেশক্রমে জানানো হচ্ছে যে, "ইউটিনাইজেশন" এবং "আগ্রা ইকোনমিক্যাল জোনস (এইজেন্ড) ডাটা বইজ এন্ড ইনস্ট্রুমেন্টস" এবং "জিআইএস ফর অগ্রিকালচারাল ডেভেলপমেন্ট" শীর্ষক কারিগরী সহায়তা প্রকল্পটি বিগত ২৮-১২-১৪ ইং তারিখে যথাযথ কর্তৃপক্ষ কর্তৃক অনুমোদন লাভ করিয়াছে।

১। অনুমোদিত প্রকল্পের বাস্তবায়নকাল জানাই, ১৯৯৩ ইংতে জুন, ১৯৯৯ পর্যন্ত এবং ইহার অনুমোদিত ব্যয় মোটে ১০০০.৮৮ নক্ষ টাকা। প্রথম একাড/ইউএনডিপি ইংতে প্রকল্প প্রাথমিক হিসাবে মোটে ৮০৯.৮০ নক্ষ টাকা (০৮৮.১০ নক্ষ টাকা বৈদেশিক মুদ্রাসহ) পাওয়া যাইবে একাড/ইউএনডিপি প্রকল্প প্রাথমিক অনুদান হিসাবে প্রদান করিবে।

২। যথাযথ কর্তৃপক্ষ কর্তৃক অনুমোদিত প্রকল্প হকের ১ (এক) কপি প্রত্যক্ষপে সংযোজিত হইবে।

৩। প্রকল্পটি সমাপ্তির ১০ (দশ) দিনের মধ্যে বাস্তবায়ন প্রতিবেদন প্রস্তুতি প্রকল্পের নিকটে প্রেরণের অনুমোদন করা হইবে।

স্বাক্ষরিত কর্তৃক স্বাক্ষরিত

(মোহাম্মদ রেজা)
সহকারী প্রধান
ফোন : ৩১ ৬১ ১৮।

পাঠন
কৃষি সচিবালয়,
বাংলাদেশ সচিবালয় ঢাকা।

অনুমতি (সংশোধনীসহ) :

- ১। সচিব, আর্থনৈতিক সম্পর্ক বিভাগ, সেরে বাশা নগর, ঢাকা।
- ২। সচিব, স্বর্গ বিভাগ, বাংলাদেশ সচিবালয়, ঢাকা।
- ৩। সচিব, সূত্রাঙ্ক সচিবালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ৪। সচিব, বাস্তবায়ন পরিণীকন ও সূত্রাঙ্ক বিভাগ, সেরে বাশা নগর, ঢাকা।
- ৫। নির্বাহী সহ-সভাপতি, বিশ্লেষণ, নতুন বিষয় বস্তু সচিব, ফার্ম সেক্টর, ঢাকা।